

Experiencing physical education in the upper secondary school setting: a grounded theory study of young people's mental health development

Ida Storberget



Høgskolen i **Hedmark**

Master thesis

Faculty of Public Health Sciences

HØGSKOLEN I HEDMARK

2013

Acknowledgements

I feel both relief and sadness over the fact that the master journey, and my life as a student, is over. Nevertheless, after finishing the long and educative process of work with this master thesis, I would like to express my gratitude to all that have been a part of this process – in one way or another.

First of all I would like to thank Hedmark University College, including teachers, library and administrative staff, for through the Master programme of Public Health, offering me the opportunity to immerse in an interesting and socially beneficial discipline, and the necessary support along the way.

Second, I would like to thank Professor Miranda Thurston who as my supervisor has been a great support throughout the process, believing in me, putting effort in reading, commenting and discussing my work with me, so that I finally was able to present a finished piece of work. Also, she has with patience corrected me on my many spelling- and grammar mistakes in English, which accounted for a significant workload. Thank you! I could not have wished for a better person to guide me through this process.

Further, all informants participating in the study deserve my gratitude. The result is based on their eager and willingness to offer me their time and to share their, many of them personal, thoughts and experiences related to the area of investigation with me. Without them it would not have been possible to do this study.

Finally, I would like to thank my family, and friends, among these my fellow student Lars Bjørke, for being partners of discussion, for their patience, for being helpful and encouraging in periods of frustration and stagnation in my work with this thesis. I know that I during this process from time to time have been hard putting up with, and therefore, I am thankful you all did.

Table of contents

ACKNOWLEDGEMENTS.....	2
TABLE OF CONTENTS.....	3
TABLES AND DIAGRAMS.....	5
ABSTRACT	6
NORSK SAMMENDRAG	7
1. INTRODUCTION.....	8
1.1 BACKGROUND TO THE STUDY	9
1.2 AIMS AND OBJECTIVES	11
1.3 RESEARCH QUESTION.....	12
1.4 THE THESIS STRUCTURE	13
2. REVIEW OF THE LITERATURE ON YOUNG PEOPLE’S MENTAL HEALTH AND THE PUTATIVE ROLE OF PE AND SIGNIFICANT ADULTS	14
2.1 SOCIALIZATION AND HABITUS	14
2.2 SOCIAL INTERACTION AND SOCIAL CLIMATE – TEACHER-STUDENT RELATIONSHIPS.....	16
2.3 RESILIENCE	19
2.3.1 <i>Identity</i>	21
2.3.2 <i>Self-perception and personal competences</i>	22
2.4 THE POTENTIAL CONNECTION BETWEEN PE AND MENTAL HEALTH IN ADOLESCENTS – WITH AN EMPHASIS ON THE ROLE OF THE PE TEACHERS AND THEIR WORK WITH YOUNG PEOPLE	24
2.4.1 <i>Mental health – a school responsibility</i>	27
2.5 CONCEPTUALIZATION: THE SENSITIZING CONCEPTS DRAWN FROM THE LITERATURE	29
3. METHODOLOGY AND METHODS.....	31
3.1 APPROACH TO THEORY	31
3.2 VALIDITY AND RELIABILITY – TRUSTWORTHINESS	32
3.3 RESEARCH STRATEGY – APPROACH AND STUDY DESIGN.....	33
3.3.1 <i>Research question and objectives</i>	34
3.4 CHOICE OF METHODS AND SAMPLE.....	34
3.4.1 <i>Sampling of context and participants</i>	35
3.4.2 <i>Observation</i>	36
3.4.3 <i>In-depth interviews with PE teachers</i>	37
3.4.4 <i>Focus groups with young people</i>	38
3.5 DATA GENERATION – IMPLEMENTATION AND EXPERIENCES	39

3.6	ANALYSIS AND INTERPRETATION OF DATA	40
3.6.1	<i>The analysis – step by step</i>	41
3.7	ETHICAL CONSIDERATIONS	42
4.	PRESENTATION OF THE FINDINGS	44
4.1	SOCIAL PROCESSES IN PE TEACHING AND MENTAL HEALTH DEVELOPMENT	45
4.2	SOCIAL RELATIONS AND CLIMATE – THE TEACHER-STUDENT RELATIONSHIPS	49
4.3	RESILIENCE	54
4.3.1	<i>Identity</i>	58
4.3.2	<i>Self-perception and personal competences</i>	61
4.4	THE POTENTIAL CONNECTION BETWEEN PE AND MENTAL HEALTH IN ADOLESCENTS – WITH AN EMPHASIS ON THE ROLE OF THE PE TEACHERS AND HOW THEY WORK WITH YOUNG PEOPLE	64
4.5	PLAUSIBLE ACCOUNTS: A GROUNDED THEORY	67
4.5.1	<i>Key mechanisms – social processes</i>	70
5.	DISCUSSION	72
5.1	LIMITATIONS OF THE STUDY	72
5.1.1	<i>Limitations of qualitative approaches and methods</i>	72
5.1.2	<i>Involvement and detachment</i>	74
5.2	THE PROCESSES OF SOCIALISATION AND HABITUS FORMATION IN PE TEACHING – IN RELATION TO MENTAL HEALTH DEVELOPMENT	76
5.3	THE ROLE OF SOCIAL RELATIONS AND SOCIAL CLIMATE – TEACHER-STUDENT RELATIONSHIPS	80
5.4	DEVELOPMENT OF RESILIENCE	82
5.4.1	<i>Identity formation</i>	85
5.4.2	<i>Self-perception and personal competences in PE</i>	87
5.5	ASSOCIATION BETWEEN PE AND MENTAL HEALTH – WITH EMPHASIS ON THE ROLE OF THE TEACHERS	88
5.6	CONCLUSION TO DISCUSSION	91
6.	CONCLUSIONS	94
	REFERENCE LIST	98
	APPENDICES	106
	APPENDIX 1: INTERVIEW GUIDES	106
	APPENDIX 2: WRITTEN CONSENT	109
	APPENDIX 3: LETTER OF INFORMATION	110
	APPENDIX 4: NSD DOCUMENT	111
	APPENDIX 5: OBSERVATION SCHEDULE	113

Tables and diagrams

TABLE 1: Coding and categorization of findings (page 44).

DIAGRAM 1: Key mechanisms in social processes (page 71).

Abstract

A link has been made between young people's participation in sport and physical activity and their mental health. There is, however, a limited amount of research that has explored how sport and physical activity might influence mental health and what mechanisms might be involved. In particular, most research has been quantitative in orientation yet the use of qualitative research has the potential to illuminate such mechanisms. All children and young people spend a substantial number of hours in physical education (PE) in schools, but these settings have been little explored in terms of their influence on mental health development. The main aim of this study was to fill these gaps by describing and understanding how PE teachers work with young people, and what implications it might have for the mental health development of young people. The study focused on social processes and interactions, and took place within the upper secondary school PE setting. The main research question was *"How do PE teachers work with young people, and what are the implications for the young people's mental health development"*? A number of sensitizing concepts guided the research, and a grounded theory approach was taken towards literature and analysis of findings.

To be able to understand and describe PE teachers' and students' experiences of the social processes in PE, and how they could influence mental health development, a mixed methods qualitative approach was used. An upper secondary school in a large Norwegian town was the setting for the study. Data were generated through observation in PE lessons, interviews with PE teachers and focus groups with students.

The study has identified a number of social processes involving PE teachers and students during PE that had the potential to influence the mental health development of young people, both positively and negatively. The type and form of activities PE teachers construct, their ways of communicating with students, the number of students and short weekly duration of the subject, and the framework of teaching seemed to be critical factors in this regard.

The study concluded, that PE teachers' approaches and ways of working with young people means that young people either thrive in and find PE to build mental health related factors, such as self-perception and resilience, or they experience dissatisfaction and discomfort, which makes it less likely that they will build a positive self-image, increasing their vulnerability. These processes combined to produce a particular kind of social climate that was either supportive of, or undermined the students' mental health development. However, it was also concluded that teachers find the context and working conditions affect *how* they work and interact with students, and this partly explains why they cannot, at all times and for all students, create a social climate that is supportive of students' mental health development.

Finally, if the aim is to strengthen the PE arena as a mental health promoting setting, as Norwegian policy documents suggest, then this study suggests a number of steps that could be taken.

Norsk sammendrag

Det er funnet en sammenheng mellom unge menneskers deltakelse i idrett og fysisk aktivitet, og deres mentale helse. Det er imidlertid en begrenset mengde forskning som har undersøkt hvordan idrett og fysisk aktivitet kan påvirke psykisk helse, og hvilke mekanismer som kan være involvert. Det meste av forskningen har også vært kvantitativ i orientering, selv om bruk av kvalitative undersøkelser har større potensiale til å belyse slike mekanismer på en god måte. Alle barn og unge tilbringer et betydelig antall timer i kroppsøving i skolen, men denne konteksten er lite utforsket med tanke på den mulige påvirkningen den kan ha på utvikling av mental helse. Hovedformålet med denne studien var å fylle disse hullene ved å beskrive og forstå hvordan kroppsøvingslærere arbeider med unge mennesker, og hvilke implikasjoner det kan ha for utviklingen av mental helse hos ungdom. Studien fokuserte på sosiale prosesser og interaksjoner mellom lærere og elever, og ble utført innen kroppsøvingssammenheng i den videregående skole. Den overordnede problemstilling var *"Hvordan jobber kroppsøvingslærere med unge mennesker, og hva er konsekvensene for de unges utvikling av mental helse"*? En rekke sensibiliserende konsepter var veiledende i forskningen, og en 'grounded theory' tilnærming ble brukt ved gjennomgang av litteratur og analyse av studiens funn.

For å kunne forstå og beskrive kroppsøvingslærernes og elevenes opplevelser av de sosiale prosessene som foregår i kroppsøvingundervisningen, og hvordan disse opplevelsene kan påvirke utviklingen av mental helse, ble flere kvalitative datainnsamlingsmetoder anvendt. En videregående skole i en relativt stor norsk by var settingen for studien. Data ble generert gjennom observasjon i kroppsøvingundervisning, intervjuer med kroppsøvingslærere og fokusgrupper med elever.

Studien har identifisert en rekke sosiale prosesser, som finner sted i kroppsøvingundervisningen, som involverer kroppsøvingslærere og studenter, og som hadde potensiale til å påvirke utviklingen av mental helse hos ungdom, både positivt og negativt. Kroppsøvingslærernes aktivitetsvalg, deres måter å kommunisere med elevene på, elevtallet og varigheten av faget per uke, samt rammene for undervisningen viste seg å være kritiske faktorer i forbindelse med dette.

Studien konkluderte med at kroppsøvingslærernes tilnærminger, og måter å arbeide med unge mennesker på, fører til at ungdom enten trives i og opplever at kroppsøvingssammenheng underbygger faktorer relatert til deres mentale helse, som for eksempel selvoppfatning og resiliens, eller til at de opplever misnøye og ubehag i kroppsøvingundervisningen, noe som gjør det mindre sannsynlig at de vil bygge et positivt selv bilde, og øker deres sårbarhet. Disse prosessene produserte til sammen en bestemt type sosialt klima som var enten støttende, eller undergravende i elevenes utvikling av mental helse. Imidlertid ble det også konkludert med at lærerne opplever rammene og arbeidsvilkårene sine som påvirkningsfaktorer for hvordan de arbeider med, og samhandler med elever. Dette forklarer hvorfor de ikke, til en hver tid og for alle elever, kan skape et sosialt klima som er støttende med tanke på utvikling av mental helse hos elevene.

Avslutningsvis, hvis målet er å styrke kroppsøvingssammenheng som en mental helsefremmende arena, som det i norske helse- og skolepolitiske dokumenter antydes å skulle være, foreslår denne studien en rekke mulige tiltak.

1. Introduction

Young people's mental health needs are largely unmet (Patel, Flisher, Hetrick, & McGorry, 2007; Wiles et al., 2008), and is a matter considered to be a major public health concern (Kendal, Keeley & Callery, 2011). Although the research evidence on the effects of physical activity on young people's mental health is limited and inconsistent, the physical education (PE) and sport policy and practice arenas, participation in sport and physical activity is strongly promoted on the grounds that it has the potential to offer young people psychological and social benefits which may promote their mental health (Sandford, Armour, & Warmington, 2007; Biddle & Asare, 2011; Kay, 2009).

This project is a contribution to a research study of the Faculty of Public Health Sciences in Hedmark University College, which addresses the public health issue of young people's mental health. The specific focus of this Masters project is on how young people experience sports and physical activity in school – with and through adults (PE teachers) with whom they interact – with particular reference to the consequences for their positive mental health development. Adolescents are regarded as a high-risk group for engaging in health compromising behaviour (Bynner, 2001). At the same time, adolescent development relates to the adoption of health promoting behaviours – behaviours which might advance their health, such as being physically active (Carter, McGee, Taylor & Williams, 2007). Carter, McGee, Taylor and Williams (2007) points out that former research has not paid much attention to the factors that might advance the health of an individual, but rather has focused on risk behaviours. Whether the predictors of health promoting factors are different from the health compromising ones, is still unclear. Nevertheless, the social context, one of which is the school in which young people grow up, has been identified as an important influence in mental health development (Mæland, 2010). Kay (2009) argues that there is a widespread and long-standing assumption that sport can provide social benefit beyond the immediate experience of participation. With this in mind, the factors that might develop and promote the mental health of adolescents are worth studying. This study focuses on the social relations young people have with adults engaging in physically activity with them. This is explored more fully in section 1.1.

1.1 Background to the study

Mental health problems are a public health burden worldwide (Sagatun, Sjøgaard, Bjertness, Selmer, & Heyerdahl, 2007; Biddle & Asare, 2011), and mental disorders account for a large proportion of the disease burden in adolescents in all societies (Patel, Flisher, Hetrick, & McGorry, 2007; Mæland, 2010). There is general agreement that there has been an increase in psychosocial disorders among young people since the 1950s (Steffenak, Nordstrøm, Wilde-Larsson et al., 2012). Therefore, the mental health of young people in particular, is relevant to public health (Patel, Flisher, Hetrick, & McGorry, 2007).

First, there is a need to distinguish between mental disorders, such as anxiety and depression, and mental health, to make it clear what this study takes interest in. Meltzer, Gatward, Goodman and Ford (2003) define mental disorders as clinically recognisable symptoms or behaviour associated with considerable distress and substantial interference with personal functions. This study takes more interest in the positive development of mental health and different indicators of this, such as for example resilience which is a relevant concept because it indicates possession of skills that can help a person achieve positive outcomes when difficult circumstances carries risk to a person's mental health (Zolkoski & Bullock, 2012), and self-esteem which says something about a person's values in relation to him/herself (Biddle & Asare, 2011). Sport and physical activity might help build this up through being arenas that potentially can provide young people with feelings of mastery and belief in own abilities, which again in the future might make the young people less likely to experience mental disorders (Biddle & Asare, 2011; Ommundsen, 2000).

There is strong evidence for a number of physical benefits of physical activity, both when it comes to young people and adults. When it comes to the benefits physical activity might have for mental health in children and adolescents, however, the evidence is poor (Ekeland, Heian, Hagen, Abbott & Nordheim, 2009; Paulska & Scwhenk 2000). Also, the effect of physical activity in children and adolescents in general has received less attention than in the adult population (Biddle & Asare, 2011). Ommundsen (2000) emphasises the use of sport and physical activity as vehicles to promote psychosocial health and wellbeing, and to prevent mental distress in children and adolescents. Based on his summary of present research in the field, he argues that participation in physical activity is associated with a lower prevalence of psychosocial health problems, and that involvement in sport seems to contribute to a better self-perception in young people. Bremnes, Martinussen, Laholt,

Valmyr and Kvernmo (2011) claim a positive correlation between mental health and physical activity among youth in Norwegian upper secondary school, and Motl, Birnbaum, Kubik, & Dishman (2004) found a correlation between reduced physical activities and increased depressive symptoms in young teens. However, that there are correlations between physical activity and mental health does not necessarily mean that one causes the other, or the other way around (Birkeland, Torsheim & Wold, 2009). To investigate these correlations in a qualitative way may have the potential to shed light on causal processes and generate understandings of the influence of particular factors and contexts in which physical activity take place, which is the purpose of this study. Sport and physical activity during adolescence takes place in a variety of contexts (Haugen, Säfvenbom & Ommundsen, 2011), including PE which is the context in which this study is conducted.

In adults, research documents a number of benefits of physical activity for psychological well-being, which includes mood states, enhanced self-perception and self-esteem – in other words benefits that may serve as protective against developing poor mental health (Sagatun, Sjøgaard, Bjertness, Selmer, & Heyerdahl, 2007; Hallal, Victora, Azevedo, & Wells, 2006; Miles, 2007; Mæland, 2010). In adolescents these issues are, as earlier mentioned, less well studied, but most mental health disorders begin during youth. It is also in childhood and during adolescent that the most important health-related behaviour is formed (Mæland, 2010), which makes studying young people important to health promotion work.

The research on this field is limited, but there has been some qualitative research on the impact sport and exercise based interventions have on re-engaging disaffected youth, which might also be seen in the context of mental health development of young people in general. To connect the research on sport programmes for disaffected youth to the aims of this study, sport programmes, like PE lessons, can be seen as a series of social relationships and social processes where learning and socialization more generally take place (Coalter, 2012). The Sandford, Armour and Warmington study about disaffected youth (2007), also suggests that one of the key issues for further research on this topic is to understand the most effective kind of leadership in sport and physical activity. The study also highlights the necessity of positive role models for positive mental health development, and teachers and leaders that emphasise fairness, respect and enthusiasm, and commits to understanding the issues with which the young people are struggling. Coalter's (2012) study also places the social relationship between leaders and participants in sport programmes central in changing attitudes and behaviour. Also Ledochowski, Unterrainer, Ruedl, Schnitzer and Kopp (2012)

indicate that coaches strongly influence the nature and quality of the sport experience within the youth sport environment. This relates to programmes for disaffected youth that aim to change behaviour, and to competitive sports, while the research question in this study is examining how adults interact with young people through sport in everyday school settings. Some of the ideas from sport programmes for disaffected youth, and from youth competitive sports, illustrate the kinds of factors that might also be important to focus on in everyday settings, as in this case; at school. Mæland (2010) claims the school environment to be important for the development of health and health behaviour – in a life course perspective.

1.2 Aims and objectives

The aim of this study was to understand how young people experience physical education, and the consequences it might have for their mental health development. The focus was on primary prevention of mental disorders, which means focusing on preventing disorders occurring in the first place through strengthening factors that are protective of a person's mental health and reducing risk factors, rather than to treat disorders that already have developed (Berg, 2007). Therefore, social processes and the interactions between teachers and young people, between young people and other young people, and how these interactions are facilitated by the teachers, was focused upon. The setting of investigation was a public upper secondary school in a large town in Hedmark County, Norway. The age group of investigation was young people aged 16 to 17.

The objectives are to:

1. Describe and explore how PE teachers work with young people. For example, do they act as mentors or role models and if so in what ways? What kind of social climate do they create? What kinds of activities do they construct? What kind of feedback and how is it given to young people?
2. Describe and understand the impact of school PE experiences on young people in relation to the concept of resilience. For example, in the eyes of young people has PE influenced the development of their identity (through certain personal competences and self-esteem), their confidence (through autonomy), their emotional control, their sense of satisfaction, achievement and fulfilment?

3. Understand and describe the potential connection between physical activity and mental health, with an emphasis on the role of the teachers in the sport and physical activity setting of PE.

1.3 Research question

The research question that gave the foundation for the research, and is a vehicle for reaching the aims and objectives of the study, was

How do physical education teachers work with young people, and what are the implications for the young people's mental health development?

The main question's purpose was to develop a general understanding of the area of investigation, while the underlying focus of the objectives was on how and what the significant adults in their role as mentors or examples provided for the young through their interaction, either that would appear to be risk factors, protective factors or other factors relevant to the young people's mental health.

The aim was to generate knowledge about how the experiences and interactions in the sport and physical activity settings makes the young people feel about themselves, their identity and competences, and what this have to say for their resilience also beyond these particular settings. Regarding this, the aim was to find out if these feelings, certain identity traits, personal competences or resilience might be transferable to other arenas of life, and if these concepts can be set in conjunction with positive mental health in general, to a greater or smaller extent.

A qualitative approach was used in order to understand these social processes, their consequences and the extent to which extent they might affect mental health development.

1.4 The thesis structure

The thesis consists of 6 Chapters. This Chapter (1) gives an introduction to the research study and sets the aims and objectives of the study.

Chapter 2 is a critical review of the literature on young people's mental health and the putative role of sport and physical activity (PE). It examines the relevant concepts, as a background to the study. Chapter 3 presents the methodology and provides a detailed description of the approach and study design, justifies the choice of methods, gives an insight into the overall research process and explains how the findings were generated and analysed. The next Chapter, Chapter 4, presents the findings of the study, first ordered by themes and finally summarized. Chapter 5 presents the discussion. It seeks to explain the findings by drawing on relevant sensitizing concepts from Chapter 2, cross references the findings to the wider literature, and illustrates how the aims and objectives of the study have been met. In Chapter 6, a number of conclusions are presented as an answer to the research question, and suggestions for measures and further research objectives are put forward.

2. Review of the literature on young people's mental health and the putative role of PE and significant adults

This section of the thesis covers the approach to the field, the purpose of the study and the status of knowledge on the field of interest through a critical review of existing research on the specific topic and related to the aims and objectives of this study in particular. Even though qualitative research aims to generate theory, existing knowledge about the area to be investigated forms an important part of the background.

Given the grounded theory approach to this study, literature has served as a valuable source of comparison with earlier studies, in a critical manner, and been used to direct the analysis of the findings of this study. Even if the literature review was done mainly in advance of completion of the analysis, which is disputed in grounded theory, it has been focused upon not seeing the data generated through this study through the lens of earlier ideas, and on not letting the literature strangle the theories derived from this study (Charmaz, 2006). The literature review has also showed how and where this study comes into play extending relevant literature, and it lays the foundation for the interpretation of the findings and the discussion. The literature review also explains the significance of the concepts of the study, which forms how we make sense of this part of social world, and helps to organize the research interest of the study (Charmaz, 2006; Bryman, 2012).

2.1 Socialization and habitus

As young people live, they cannot avoid learning something, somewhere, with somebody. The concept of socialization refers to the processes through which people are taught and internalize the values, beliefs, expectations, knowledge, skills and habits prevalent in the groups they are part of. This learning processes may happen directly or indirectly, explicitly or implicitly, intentionally or unintentionally (Green, 2010).

Sport and physical activity settings are arenas of socialization which promote different types of social interactions (Coalter, 2012). The social context in which young people grow up, and their connectedness to family, friends and school life has been identified as important influences in the development of health behaviours (Carter, McGee, Taylor & Williams,

2007). Hansen, Larson and Dworkin's (2003) study is also interesting in connection with the aims of this study. They see the sporting arena not only as an arena of socialization, but also associated with stress, and argue that there is a need to develop knowledge on how the experiences that leaders can influence are related to positive developmental change, which is part of this study's purpose to do. Socialization is typically divided into two categories – primary socialization which refers to the most influential form; usually experienced within the family, and secondary socialization which in contrast refers to areas beyond the family; such as school, peer groups and sports clubs (Green, 2010). The different activities in which young people spend time can be seen as arenas of socialization and learning environments with different opportunities for development and growth (Hansen, Larson & Dworkin, 2003). Hansen, Larson and Dworkin (2003), also outline different types of development experiences young people gain through activities. One domain of these experiences is developing connections with adults, including those relationships which are sources of social capital. Social capital can be generated through both family (the primary socialization), and through other social networks (secondary socialization), for example in school, which is the setting investigated in this study (Earl, Lloyd, Sidell & Spurr, 2007). Significant adults, in this case the PE teachers, is commonly associated with socialization as they are agents of socialization. PE teachers then can be considered as people who have a significant influence on the thoughts and practices of young people (Green, 2010). The concept socialization describes the development that makes an individual a part of society (Bø & Sciefloe, 2007). Sport and physical activity are considered significant for the socialization of children, because this is an arena where many young people spend a significant amount of time (Espenes & Smedslund, 2005). This also applies to the PE arena. The social processes and interactions that take place and are formed within sport and physical activity settings – in this study the PE lessons – might serve as a protection against risk factors for psychosocial problems – or protective factors for mental health (Ommundsen, 2000).

Who you are, is reflected in your habitus which is acquired in social environments as a product of the socialization process described above (Wilken, 2008). The significance of socialization to mental health development therefore lies in the impact it has on young people's predispositions, or habitus (Green, 2010). The habitus concept equips people with a matrix for how they perceive, understand and therefore act, in any given situation (Wilken, 2008). Young people's habituses are expressed when they make sporting and leisure lifestyle choices (Green, 2010). These choices may influence the mental health of the young people,

in a life course perspective, when habitus can be seen as “forces” which govern or influence the choices of a person. One can discuss how best to influence young people’s predispositions towards different habits – the family and the school are regularly blamed or praised for young people’s negative or positive choices regarding health and physical activity (Green, 2010). Bourdieu (Wilken, 2008) suggests that personality is formed through social interactions, not inherited, and that habitus is acquired in a social environment. The body, and with this the aspects of a person’s health, is related to the person’s habitus (Bourdieu, 1984). This could relate to the term role-model, which could be a teacher influencing what kind of habitus a student acquires. This is further explored below.

Still, the extent to which significant adults interacting with young people in sporting and physical activity settings create the social circumstances and transfer values and habits necessary for positive mental health development, and how the young people experience this, is unknown.

2.2 Social interaction and social climate – teacher-student relationships

Social networks can influence the mental health condition of a young person (Ommundsen, 2000) – social support and networks may serve as protective factors that may make it less likely that young people develop a damaging health condition (Mæland, 2010). Social competence accounts for an aspect of the mental health of young people – social skills gives social acceptance, which again can strengthen psychological well-being. Still, it is a matter of some debate whether or not participation in physical activity protects against antisocial behaviour. Sport and PE may also have negative attributes, such as antisocial behaviour and bullying (Baumert, Henderson & Thompson, 1998). The social context and nature of the activities, and the climate in which the activities take place has to be taken into consideration when discussing the potential of physical activity to promote social development, and seems to be more important than the physical activity in itself (Ommundsen, 2000). In this section the social interactions and relations, with an emphasis on the adult interaction and how the adults facilitate social belonging, is explored.

All positive relations young people develop outside the close family are considered protective of their mental health. Significant adults that show kindness, care and support help young people to feel valued (Berg, 2007). Some argue that teachers are in a unique position

to recognize and provide support for students who struggle with their mental health (Johnson, Eva, Johnson & Walker, 2011; Berg 2007), but this requires that they have knowledge of the issue. If young people can learn skills that enable them to cope with life stressors, this may reduce the consequences of such incidents later on in life. Johnson, Eva, Johnson and Walker (2011), see the importance of teachers not ignoring changes in their student's behaviour, when too many adolescent students drop out of high school. Teachers can pay attention and be cognizant of possible symptoms of mental health issues in their on-going interactions with students, which may be seen as an aspect of mental health development. Since school is the centre of the lives of many young people, it can serve as a point of support – and the teachers may be the first to see evidence of mental problems with which many young people struggle (Johnson, Eva, Johnson & Walker, 2011; Olsen & Traavik, 2010). A study of Norwegian youth by Helland and Mathiesen (2009) found a positive correlation between support from teachers and positive mental health, and a corresponding correlation between mental problems and lack of support from teachers. The teachers' role is clearly considered to have potential to be important in relation to mental health development in adolescents. These studies justify and underlines why this study focuses on how PE teachers work with young people when aiming to develop an understanding of how experiences and interactions in PE makes young people feel about themselves, and how it may influence their mental health development.

Research has shown that coaching behaviours that foster positive coach-athlete relationships reduces apprehension and anxiety in young sport participants (Ledochowski, Unterrainer, Ruedl, Schnitzer & Kopp, 2012). Still, the competitive nature of sport and some forms of physical activity may lead to a higher acceptance of antisocial behaviour. Ommundsen (2000) argues that the task of the adults then is to reduce the acceptance of negative attitudes to others. Further research, that focuses on, for example, secondary socialisation processes involving significant adults in young people's sporting and physical activity networks could further explore these issues. This applies to what kinds of experiences teachers create for young people in PE lessons, and how these produce certain mental health outcomes.

Relationships, leadership, the environment in which the activity take place, and the nature and role of these things are important to young people (Coalter, 2011). The term role model can in a wide sense be considered as an individual perceived as exemplary or worthy of imitation, whilst mentors support, guide and shape younger individuals as they weather difficult periods (MacCallum & Beltman, 2002). Through observing others, young people

learn how to perform certain behaviours, and what will happen as a consequence – in a negative or a positive way. More attention is paid and significance given to role models that are held in high regard by students (Woolfolk, 2007). Teachers can serve as role models – when young people are treated with respect and are recognized by significant adults, they will learn how to treat others (Olsen & Traavik, 2010). Adult role models have been found to be important in influencing the behaviour, attitudes and values of young people, and it has been argued that the social relationships experienced during involvement in physical activity programmes are the most significant factors in these behavioural changes (Coalter, 2011, 2012; Sandford, Armour & Warmington, 2007). Grills-Taquechel, Norton and Ollendick (2010) suggests that teacher support can play a protective role for adolescents, and that student perceived school support can predict later psychological distress. Also Carter, McGee, Taylor and Williams (2007) find that social belonging at school serves to protect a person's health. Shepard et al. (2012) carried out an intervention programme for students involved in risk activities, and claim that when students felt engaged, encouraged, and supported by their teachers, they participated more fully and experienced success. These students noted that their teachers believed they could succeed, and that the teachers were more than just teachers, that is to say, they were like friends that cared. The findings from Carter, McGee, Taylor and Williams' (2007) study, showed that adolescents who find the school environment caring and fair report less risk behaviour and higher levels of physical activity. This may also indicate that positive teacher-student relationships may serve as a protective factor against poor mental health. On the other hand, upper secondary school teachers often interact with more than 100 students every day, which makes it difficult to recognize the students who are at risk for their mental health development to take a negative direction (Johnson, Eva, Johnson & Walker, 2011). School life and connectedness may then also contribute to health compromising behaviours (Carter, McGee, Taylor and Williams, 2007).

To establish positive relationships with students demand that the teachers gets to know students, let the students get to know them, and show interest in the students through recognizing them for their achievements (Ogden, 2010). Also Olsen and Traavik (2010) emphasize that students need empathic adults that give positive feedback – they need to be seen. Ogden (2010) argues that young people also learn more from teachers they trust and respect, and that most students value that the teachers care about them. Positive feedback and reinforcement of certain behaviours can motivate youth to maintain this behaviour. The

feedback or reinforcement can be given directly from a teacher to a student, or a student may observe feedback given to others, and then feel encouraged to perform the same behaviour as the others (Woolfolk, 2007). This may indicate that the feedback from teachers can support specific health behaviours and give the students higher levels of self-efficacy, which again might influence the mental health status of the students and reinforce their self-perception.

2.3 Resilience

The ability to cope with challenges and stresses that one is exposed to through life depends on the person's resources. Therefore, the mastery of an incident may be totally different from person to person (Espenes & Smedslund, 2001). Resilience indicates the possession of several skills, in varying degrees, that help a person cope and achieve positive outcomes despite challenging circumstances (Zolkoski & Bullock, 2012). In other words, resilience can be seen as the protective factors, processes and mechanisms that, despite experiences with stressors that carry risk for developing psychopathology, contribute to a good outcome (Hjemdal, Friborg, Stiles, Martinussen & Rosenvinge, 2006). Resilience is not a personal attribute, but it describes a process where positive adaptation happens, in the face of significant adversity. When focusing on positive adaptation, one usually thinks in terms of competence or success in achieving appropriate developmental tasks (Schoon & Bynner, 2010). Enhancing a person's resilience can reduce the impact of risk factors through generating protective mechanisms. During childhood and adolescence we are facing a broad spectrum of both risk and protective factors, which outcomes can characterize a person across the life course (Schoon & Bynner, 2010).

The risk factors may be divided into different categories. One of these is school risk factors, which among other things, places emphasis on the importance of for example attending nursery school or play groups to lay the foundations of primary education (Bynner, 2001). The influence of risk factors is strongest during early childhood and during adolescent (at age 16), when the early years are vital in shaping future developments (Schoon & Bynner, 2010). The protective factors can modify negative effects of adverse circumstances through the life course. Early experiences, whether they are good or bad, can enhance a person's resilience. Resilient children both perform better in school tests and have more hobbies and social contacts than their more vulnerable peers (Mæland, 2010; Schoon & Bynner, 2010). Resilient children and adolescents are characterized by having had stable and supportive

family environments. Also the aspects of the wider social context are important in developing resilience, including availability of support, for example, from a teacher that recognizes a child's capabilities and invests time in supporting the child. Access to such kind of role models can serve as a protective factor (Schoon & Bynner, 2010). Resilience has become a conceptual umbrella for all these kinds of protective factors that are found to modify the impact of adversity (Hjemdal, Friborg, Stiles, Martinussen & Rosenvinge, 2006).

Mæland (2010) sees the school as both a resource and a risk factor for future health of students; a student that succeeds in school brings knowledge, skills, confidence and self-esteem, e.g. resilience into adult life, whilst a struggling student will be far less prepared for the challenges of adult life. The last mentioned student will also be in a risk group when it comes to developing negative habits due to health, and will more often develop both physical and mental health problems (Mæland, 2010). This indicates that the way in which the school and the teachers meets these students, can influence whether their problems will develop further, or not – which again will have to do with the student's level of resilience. The school environment is also emphasized as an important setting for promoting resilience in young people by Zolkozi and Bullock (2012) – experiences involving supportive peers and positive teacher influences have been positively linked to resilience in adolescents. Hjemdal, Friborg, Stiles, Martinussen and Rosenvinge (2006), put the teachers in the context of development and promotion of resilience in young people, by including them in an external support system that facilitate the individual's attempts to master adversities.

Ströhle (2008) notes that physical activity might trigger events that result in higher resilience against mental disorders, this indicating that physical activity may provide factors protecting against such disorders. How and whether these skills acquired through sport or physical activity are transferred to other areas of life than the sporting arena, and if such personal characteristics are generalised to become a part of the persons habitus, is a question that remains to be answered (Coalter, 2011; Roberts, 2009). Still, Martinsen's (2004) studies indicate that people that are physically fit tend to have a higher level of resilience, protection against stressful life experiences that makes them able to withstand the physical and psychological stress reactions in a better way than those less physically fit. Also Espenes and Smedslund (2001), assert that physical activity has the capability to enhance a person's mental strength and the capability to deal with stresses or adversity. When it comes to children and young people's ability to cope with stressful events, e.g. their resilience, it is relative. The negative effect of such risk factors might be reduced by protective factors, like

self-esteem, confidence or social networks provided by participation in sports and physical activity (Ommundsen, 2000).

2.3.1 Identity

The concept of identity refers to a person's sense of self – the kind of person they see themselves as being, who they feel they are, and what makes them out in their own minds as well as in the minds of others (Green, 2010). To have an identity means knowing yourself and what you stand for (Berg, 2007). Youth is a key period, and also a critical period in identity formation, as young people move from parent and family orientations towards friends and peers, e.g. moving from primary to secondary socialization arenas. Also other, both social and physical changes, takes place in adolescence (Green, 2010; Berg, 2007). Identity is a central concept when aiming to understand the situations of young people – especially regarding the development of positive mental health or mental challenges that occurs in adolescence (Berg, 2007).

The development of identity takes place in a number of domains, among others the vocational and the relationship domain. School may be such a domain for young people. Stressors within these domains may disturb the process of identity development. In psychology in general, it is assumed that people want to view themselves positively and when confronted with problems one may think that one has failed. Such stressors can influence mental health, and the more a young person feels s/he has achieved, the better is the mental health of this person (De Goede, Spruijt, Iedema & Meeus, 1999). The foundation of young people's identity is vulnerable during adolescence, and the mental health condition of the young person might be challenged when the ability to cope with adversity, at this time, may not be sufficiently developed (Berg, 2007).

It has been argued that youth activities facilitate identity work through, among other things, personal exploration, gaining self-knowledge, and developing a stronger sense of who they are (Hansen, Larson & Dworkin, 2003). Ommundsen (2000) claims, that young people who participate in physical activity experience that their identity is confirmed through qualities like physical mastery and motoric skills. On the other hand, if the feelings of mastery of physical activity are absent, young people activate mechanisms that are protective of their self-esteem. In this case, physical activity will probably rather weaken the self-perception and health resources of the young people (Ommundsen, 2000). This taken into consideration,

one can assume that for the young people's perceptions of self is crucial that PE teachers organize activities that as many students as possible experiences as achievable.

Personal identity is strongly associated with social identity in terms of groups that young people are part of, for example at school or in sports (Green, 2010). Young people's identities are circumscribed by groups they are part of, and they might not interact with group members in the same way in different groups (Green, 2010). This may indicate that the identity and social skills adapted by the young people in school and PE settings do not necessarily transfer to other settings or to life in general.

As one can see from the review, literature indicates that mental health problems often occur during adolescence, and this may present a major challenge to the identity development of young people (Johnson, Eva, Johnson & Walker, 2011). The concept of identity is central when one aims to understand young people, especially in relation to the development of mental disorders or problems (Berg, 2007; De Goede, Spruijt, Iedema & Meeus, 1999). Also the presumption that the context of interest, the school, plays a significant role in the identity development of adolescents (Johnson, Eva, Johnson & Walker, 2011; berg, 2007) makes the identity concept interesting in conjunction with the aims of the study.

2.3.2 Self-perception and personal competences

Personal competence is about young people's ability to organize and utilize their own resources and resources in the environment in a way that promotes their further development (Ogden, 2010). To understand factors like self-esteem and stress management allows health care providers to do interventions prior to negative health outcomes (Weber, Puskar & Ren, 2010). This understanding might also be important for teachers, who interact with young people a significant number of hours in their everyday lives. Self-perception can be understood as a generic term for various aspects of a person's beliefs, values and expectations in relation to itself. The concept covers terms like self-esteem, self-worth and faith in own abilities (Olsen & Traavik, 2010).

Self-esteem refers to the value placed on self-concept, which comprises several domains, both social and emotional, and physical. The concept includes such aspects as the extent to which one likes oneself as a person, and is happy with oneself (Grills-Taquechel, Norton & Ollendick 2010). Self-esteem, as mentioned reflects the degree to which a person values himself or herself, is widely viewed as a key indicator of positive mental health and

wellbeing (Biddle & Asare, 2011). It is well-documented that physical activity *can* stimulate the self-esteem of children and young people, but whether or not it does is more uncertain. Nevertheless, it cannot be foreclosed that young people with self-perceptions that tends to be negative lack the social skills that enable them to be involved in physical activity in the first place (Ommundsen, 2000). Haugen, Säfvenbom and Ommundsen (2011) claims that changes towards lower self-worth may be attributed to pubertal changes, and that participation in physical activity may be seen as a factor that operates to stabilize and enhance self-worth in the adolescent years.

Factors such as self-esteem, feelings of self-worth, confidence, satisfaction, self-fulfilment and social relationships can have consequences for the development of mental health (Coalter, 2012). That is to say, because a young person with positive self-esteem and a confident self-perception is more capable of dealing with disappointments and criticism from others than those less confident (Olsen & Traavik, 2010). The concept of self-worth, or self-esteem, has been purported as a factor that protects against the development of youth anxiety, but it has also been found to decrease in early adolescence (Grills-Taquechel, Norton & Ollendick, 2010), which might partly explain why mental disorders often occur during adolescence. Positive feedback from others is claimed to be important for a high self-perception. The self-perception may be strongly influenced by interaction with others, for example teachers, that are considered of great significance in the development of self-concept. Young people with high self-perception are likely to cope better in the face of disappointment, criticism and adversity than those with a lower self-perception (Olsen & Traavik, 2010). Young people perceiving themselves as capable in physical activities are considered to be a basis for positive self-esteem and also a positive aspect of mental health (Fox, 1999). According to Huang (2010), self-esteem may increase when a young person perceives success and experience mastery in confrontation with challenges of development during adolescence.

Olsen and Traavik (2010) imply that a person may have high self-esteem in one area, but not in another. In Smith, Green & Thurston's study (2009) it is expressed that increasing the choice of activities available in PE potentially can have a positive impact on confidence and self-esteem. This can mean that high self-esteem in PE, or in one activity in PE, is not necessarily transferred to other activities or other areas of life, which is interesting in conjunction with this concept's possible correlation with positive mental health development in the young people studied, and the teachers with which they interact. Nonetheless, some

studies have demonstrated that participation in PE can have a positive effect on self-image during the adolescent years (Kirkcaldy, Shepard & Siefen, 2002), how effective it is depends on the form of activity, as also highlighted by Smith, Green and Thurston (2009). Team sports with a high profile among the peer group seem to have the most positive effect on personal competences and self-perception (Smith, Green & Thurston, 2009). Kirkcaldy, Shepard and Siefen (2002) argues that it might not be the physical activity in itself that is the key ingredient contributing to psychological well-being and a positive self-perception, rather that the most important factor might be the social properties of group sport participation, physical activity just playing a causal role. This is also indicated by Lubans, Plotkinoff and Lubans (2011). In their review of research on the impact of physical activity on the well-being of at-risk youth they found that sport programmes do have a positive effect on self-esteem through exercise, thus *because* of positive interactions with others. This corresponds with Berg's (2007) definition of self-perception; it is created and developed in a process of social interactions, and it entails both how one sees oneself, and the perception one thinks others have of you. That our perception of self is created through relations with others, and how it might be connected to mental health development, makes the concept of self-perception helpful to shed light on the research question.

2.4 The potential connection between PE and mental health in adolescents – with an emphasis on the role of the PE teachers and their work with young people

It is questioned whether physical activity and exercise in young people is associated with improved mental health or not. Biddle and Asare (2011) found that research is weak and shows small associations between positive mental health and physical activity. Still, there has been an increasing emphasis upon sport as a host of wider benefits, like personal competences and fulfilment (Bailey, 2005). Positive experiences in PE may enhance young people's mental health by building up their confidence, self-esteem and resilience, and develop friendships and a sense of belonging (Bakirtzoglou & Ioannou, 2012; Ommundsen, 2000). Therefore, physical education (PE) is considered beneficial to young people's health and well-being (Bakirtzoglou & Ioannou, 2012). Then it follows that being sedentary could have harmful effects on health. Biddle and Asare (2011) found a small but consistent association between sedentary time and poorer mental health. Still, it is not possible to say much about whether psychological health promoting effects *are* resulting from physical

activity (Ommundsen, 2000). Anyway, this study will try to understand and describe potential connections and correlations between young people, PE, the adult interactions and mental health, to shed light on the objectives of this study and to provide empirical data on this matter.

Young people's identities are inevitably intertwined with their perceptions of success and failure, both in education in general and in PE in particular. Such experiences are not only likely to affect the identities of the young people, but also their self-esteem (Green, 2010). Here Green (2010) indicates that PE not only has the potential to strengthen self-esteem and affect identity in a positive way, but in some cases also can have detrimental effects with regard to these concepts. Nonetheless, Shepard et al. (2012) emphasize that involvement in sports can be a form of participation in school that influence teens to make positive choices. This indicates that physical activity or PE may serve as an intervention for preventing and managing mental health problems among adolescents (Johnson & Taliaferro, 2011). Jowett and Cramer (2010), identify coaches and parents as key influences in children's enjoyment of sport, and play a pivotal role in the development of sport attitudes and behaviours. In a study carried out by Walters, Payne, Schluter and Thomson (2012), coaching behaviour was found to be a dominant factor influencing children's enjoyment of sports. Coaches perceived to be strongly concerned with winning were not held in high regard by the children. The morality of equality and fairness from the coach were more highly valued. The findings of this study may be transferable to the PE and the school setting, and to the effects the teacher's involvement and focus may have on the students' enjoyment of PE, and then again the possible effects this might have on their mental health. According to the Norwegian curriculum, PE shall provide the students with a starting point for lifelong enjoyment of physical activity, and the assessment criteria differs from other subject in that effort is part of the assessment. The student's abilities are also to be considered in the assessment. When interpreting the curriculum, one might say that the teachers focusing only on skills and achievements will not be able to maintain the purposes of the subject. In conjunction with Walters, Payne, Schluter and Thomson's (2012) findings on the perceived value of a coach concerned with strong performances, a PE teacher not taking the assessment criteria into account may influence the student's mental health negatively. Many factors may affect which potential effect the teachers' involvement might have; the teacher's choices of activities, feedback, communication and interaction, in other words how the teachers work with the students, can affect how the students experience PE, and how they perceive

themselves in this setting. One has to think of which consequences it might have both if the teacher's involvement is perceived negatively, or positively. A negative involvement might have an opposite effect on the young people's mental health. The teacher's role, involvement and work will be explored further in conjunction with physical activity and mental health.

Bremnes, Martinussen, Laholt, Bania and Kvernmo (2011), and Birkeland, Torsheim and Wold (2009) describe a model for understanding the correlation between physical activity and mental health containing both psychological and physiological explanations. On one side, physical activity can protect from psychological distress either through physiological and biochemical processes, or through psychological mechanisms like mastery or social belonging. This is an explanation that, if one only thinks in terms of physiology or biochemistry, potentially undermines the significance of the social relations and feelings of mastery which may be important in the formation of identity and that might mediate and strengthen a person's self-perception and resilience. When aiming to understand the role of PE teachers in connection with mental health development in young people – both in conjunction with the relationships in itself, and when thinking about how the teachers facilitate mastery, and if they are choosing teaching methods and activities that are experienced positively by students, the physiological explanation is insufficient. This also applies to the significance of social relationships, which mediate feelings of self-worth and other perceptions of self. Thus, thinking only in terms of physiology underplays the significance of social relationships to mental health development, which is where this study comes into play, putting emphasis on the potential centrality of social relations in mental health development.

On the other side, poor mental health can inhibit participation in physical activity. Also this explanation of correlation can be interesting for this study when the relations to be investigated are formed within the activity setting of PE. Witt and Crompton (1997) describe interested and caring adults, sense of acceptance and belonging, models for conventional behaviour and so on as protective factors which can enable disaffected young people to avoid negative consequences of risk environments, and are central in promoting positive youth development in such environments. Strong et al. (2005), mention coaching and teaching styles as particularly relevant to the self-concept in organized sport and PE. This may be understood both in a positive and a negative way when aiming to describe a potential connection between physical activity and mental health – depending on whether the teachers develop positive experiences and give the students a sense of achievement – or not.

According to Bakgirzoglou and Ioannou (2012), enjoyment of physical activity and the students' desire for active participation is crucial to actually achieve a positive health effect. PE teachers have the potential to influence this through their planning and implementation of PE lessons.

2.4.1 Mental health – a school responsibility

The school context has been highlighted as having the potential to play an important role in preventing adolescent mental health problems (Millings, Buck, Montgomery, Spears & Stallard, 2012), and the most common justification for PE in school is the association with improved health, physical health in particular (Bailey, 2005). Sport-based programmes are argued to promote social, educational and health goals (Kay, 2009). This could relate to the PE subject's formal aims and competence goals. Within an educational setting, the teacher is seen as central in giving positive learning experiences and facilitating processes of bonding between youth that are considered vulnerable in societal institutions (Haudenhuyse, Theeboom & Coalter, 2012).

The school is governed by laws and legislations that, when looking into them, gives the school tasks beyond the regular tuition of subjects. White Paper 30 (2003-2004) stipulates the school's responsibility to educate the individuals to take responsibility for themselves and their fellowmen. Opplæringslova (The Norwegian Education Act) (1999-2000) gives all students the right to a psychosocial environment that promotes their health and well-being, and the right to an education that makes them independent citizens. The Education Act also concerns with the tasks of the employees in the Norwegian school system. They are given a duty to act on offensive behaviour and be protective of the students' safety and social belonging. The tuition shall contribute to character formation that enables the individuals to safeguard and protect their own lives (Opplæringslova, 1999-2000). This is quite comparable to how one can define positive mental health; as the ability to overcome the stresses of life (Berg, 2007).

As one can read of this, Norwegian school has by society and White Papers and laws been given responsibility to promote mental health, even if the term mental health is not mentioned explicitly. The school is the most important arena outside home intended to ensure that young people are prepared to face life and to withstand future stresses (Berg, 2007; Utdanningsdirektoratet, 2012). This responsibility of the school and the teachers

requires awareness, education and knowledge of the issue of preventing mental disorders of the students, and it is not known how this responsibility is practiced by the teachers. Nevertheless, this study takes more interest in the mental health development, rather than how to safeguard students with occurring mental problems.

The effects one can achieve through physical activity are reflected in the Norwegian PE curriculum (Utdanningsdirektoratet, 2012), which states that the purpose of PE among other things is to give the students joy, mastery and inspiration through interaction with others. PE shall contribute to the development of self-esteem, a positive body image, self-understanding and sense of identity, give challenges and courage to push own limits. The social aspect of physical activity is also emphasized as a purpose of the subject in the curriculum. PE is meant to be an arena which promotes interaction, fair play, respect for one another and the principle of making each other better (Utdanningsdirektoratet, 2012). The role of the teacher is not described in the curriculum, but these are aims of PE that the PE teachers are supposed to contribute to the fulfilment of through their tuition. To achieve the competence goals of the PE curriculum, one can say that the teacher must be familiar with behaviours and patterns of reaction that may indicate that something is wrong – to know how to identify at-risk students (Olsen & Traavik, 2010). On the other hand, the teachers' area of responsibility does not necessarily entail to care for the students that struggle and are at risk, but to provide to all students the possibility to acquire skills that can serve protective against mental problems. Still, the curriculum makes the role of the teacher, and how they work with the young people important to the aims of PE, and relevant to the development of positive mental health.

Norwegian health authorities have in White Paper 16 (2002-2003) promoted a desire to strengthen the PE subject's extent, of health related reasons. Still, PE are today organized two school hours (90 minutes) a week for all students, normally with one teacher facilitating activities for 15 to 30 students. The subject is in upper secondary school divided into the main categories "sport activities", "outdoor life" and "exercise and lifestyle". The subject are mainly practical, meaning that being physically active accounts for most of the hours in the course of a school year. The remaining hours are used for theoretical tuition in themes relevant for physical activity and health, the extent of this decided by each teacher. The assessment criteria include theoretical knowledge, practical sport skills and effort and attitudes to the subject (Utdanningsdirektoratet, 2012). That the assessment criteria includes students' work efforts and the aims emphasis improvement of *own* abilities and skills as

important, may make the students' preconditions less important to take into consideration in the assessment, which is an issue that has been widely debated (Lyngstad, Flagestad, Leirhaug & Nelvik, 2011).

2.5 Conceptualization: the sensitizing concepts drawn from the literature

The main interest in this study is positive mental health development among young people. Concepts are key ingredients of theories, and the way people make sense of the social world – they are labels given to aspects of the social world, that have features that strike people as significant (Bryman, 2012). In this research a number of theoretical concepts, that came out of the critical review of literature cited above, are used as sensitizing concepts to guide the research, and to shed light on the objectives and aims of the study. The concepts used as sensitizing concepts provide guidance in approaching empirical instances (Bryman, 2012).

This section will explain how the concepts were drawn from literature, and what meaning they are assigned in this particular context. At this point it remains to be seen whether these concepts drawn from literature turn out to be relevant for understanding informants' views on the matter under study, which is why the sensitizing concepts may change or develop in other directions during the process of analysis. If so, a more focused review of literature may be necessary during the analysis.

Socialisation occurred to be a relevant concept connected to social interactions and mental health. Socialisation entails learning processes which influences the development of health and health behaviours of young people. The PE arena is seen as an arena of socialisation which promotes social interaction, and then again can influence mental health (Coalter, 2012). *The habitus concept* refers to a matrix for how people perceive, understand and therefor act in any situation (Wilken, 2008). The concept turned out to be relevant to this study because the student's habituses are expressed in their choices of lifestyle and exercise, which again may influence their mental health. Further, mental health development is an aspect of habitus (Green, 2010). Literature points out that youth is a critical period in identity formation (Green, 2010), which makes *the concept of identity* relevant to the study, and central when aiming to understand young people's situations regarding the development of positive mental health (Berg, 2007). The social relations between significant adults are also prominent in the literature concerning physical activity and mental health in young people.

The social interactions, relations and climate are relevant to the topic of interest because all positive relations outside the family that youth develop, are considered to be protective of their mental health (Berg, 2007). Positive relationships, meaning relationships that are experienced safe and supportive, between students and teachers may be a protective factor against poor mental health development. The study does not take interest in looking into how physical activity might affect young people that *are* struggling with mental disorders, rather focusing on the *development of mental health* that happens in social surroundings, whether this turns out to develop in a positive or a negative direction. There are many ways to define what *positive mental health* entails, but in this setting positive mental health is seen as the ability to cope with adversity and life stresses (Berg, 2007). The development of positive mental health can be linked to other concepts that turned out to be prominent in the literature, and that has similar meanings. *Resilience* has no universal definition (Knight, 2007), but in this study the term resilience focus on the ability to cope with challenging circumstances. The concept is relevant because it indicates possession of skills that can help a person achieve positive outcomes when facing stresses that carry risk for developing a negative mental health development (Zolkoski & Bullock, 2012), e.g. positive mental health. *Self-perception* is a concept that concerns aspects of a person's beliefs and values in relation to him/herself, is influenced by interaction with others (Olsen & Traavik, 2010), and covers terms like *self-esteem* and *self-worth*, which are key indicators of positive mental health (Biddle & Asare, 2011). Positive self-esteem or self-worth, may make people more capable of dealing with criticisms, but seem to decrease in adolescence (Grills-Taquechel, Norton & Ollendick, 2010).

So, on the basis of this overview one can see that the key concepts in this study involve various dimensions of mental health that might be influenced through social interactions between adolescents and significant adults in sport and physical activity settings. These concepts can also be seen as indicators of a person's mental health condition (Strong et al., 2005), which makes them useful considering the study of mental health development in young people.

3. Methodology and methods

The aims and objectives of this study required addressing understandings of human interaction processes, which are most productively explored in a qualitative way (Green & Thorogood, 2004). A qualitative methodological approach is appropriate since the study was set out to understand the perspectives of the research participants, to explore the subjective meanings they give to phenomena, and to observe a process in depth. Nonetheless, there was also a need to answer some socio-demographic questions, to allow the findings to be contextualized in terms of the social location of the informants (Green & Thorogood, 2004). The setting of the research was an upper secondary school in a large Norwegian town located in rural surroundings. At the time the research took place, the town had approximately 30 000 inhabitants, and around 360 students was attending the school, in both vocational and academic courses. Approximately 120 people were employed at the school. The research participants were all connected to this school, as students or employees in PE teaching positions.

3.1 Approach to theory

When planning to do research familiarity with the literature and research on the topic of interest, is important, because it allows the researcher to build on what is already known about the phenomenon of interest. This avoids covering the same ground as others (Bryman, 2012). Social research is, therefore, informed and influenced by the literature, and by the available theoretical positions. However, it also contributes to theory, because the findings of a study can feed into the stock of knowledge to which the theory relates (Green & Thorogood, 2004).

So, theory is central to any kind of research, and when research aims to understand humans and their behaviour, or to understand social processes, it is appropriate to use an interpretative or constructionist perspective (Green & Thorogood, 2004). One definition of theory, used in constructing grounded theory, emphasises understanding rather than explanation, viewing theoretical understanding as abstract and interpretive, where the understanding gained from theory rests on the understanding of the studied phenomenon (Charmaz, 2009). In qualitative research in general, and when employing grounded theory as the main research methodology in particular, there is the question of how to approach the

literature review, and when existing literature should be used (Dunne, 2011; Bryman, 2012). In grounded theory the researcher is not focused on testing hypotheses taken from existing theoretical frameworks – rather on developing new theory grounded in the data collection, and most qualitative researchers emphasise treating theory as something that emerges out of the data generation and analysis process (Dunne, 2011; Bryman, 2012). The theoretical analysis in this study demonstrates connections between different conceptual ideas that are developed from the data; the data support the theoretical arguments, e.g. theoretical generalizability (Bryman, 2012), which is a strength of the study. The concepts of interest to this study involve both reflecting on theory and on empirical evidence (Green & Thorogood, 2004). The concepts and theory are informed by the literature, the research question and aims of this study, and the focus on PE and teachers in sport and physical activity settings in which young people spend time, were chosen because coaching and teaching styles are argued to be important in the development of mental health related factors (Strong et al., 2005). This study was applying an open-ended strategy, in which theoretical ideas emerged out of the data (Bryman, 2012), grounded theory used as a method of discovery (Charmaz, 2009). The sensitizing concepts that came out of the literature review provided a place to start, being tools for developing ideas, some of them turning out to be more relevant than others (Charmaz, 2009).

3.2 Validity and reliability – trustworthiness

There have been discussions concerning the relevance of the concepts of validity and reliability in qualitative research, but when altering the meanings of the terms from how they are used in quantitative research one can adapt them to qualitative methods to assess the quality of the research (Bryman, 2012; Kvale & Brinkmann, 2010). Nevertheless, the concept “trustworthiness”, including the criteria credibility, transferability, dependability and confirmability has been introduced, offering an alternative for evaluation of qualitative research (Bryman, 2012).

Validity in social science involves whether the methods applied are suitable for reaching the aims of the study and answer the research question, or not (Kvale & Brinkmann, 2010). When speaking of internal validity which parallels credibility it is about whether it is a match between the results of the study and the theoretical ideas that emerge out of the study, or not (Bryman, 2012). External validity parallels transferability, which entails the

discussion whether findings hold in other contexts or even in the same context at different times (Bryman, 2012).

Reliability in quantitative research also has to do with the research findings' credibility. This issue is often considered in conjunction with the question of whether the results can be reproduced in a different time, by other researchers (Kvale & Brinkmann, 2010). The reliability in this study may then be discussed in terms of evaluating the researcher's understanding of the social world, and discussing if the research is carried out in good practice (Bryman, 2012). In qualitative research, dependability and confirmability are seen as parallels to reliability. Dependability includes that records, transcriptions, field notes and so on, which are kept throughout the research process, so that the researcher at any time can access it (Bryman, 2012). All these sources of data were kept, in safe places, during the research process. Confirmability is concerned with the researcher not letting personal values or theoretical views affect the research and the findings that derive from it (Bryman, 2012).

3.3 Research strategy – approach and study design

The practical research process was carried out from August 2012 to the end of May 2013. In order to answer the research question posed in this study, a qualitative strategy was used, meaning that words rather than quantification was emphasised in both generation and analysis of data (Bryman, 2012; Green & Thorogood, 2004). The approach to the field was interpretive, and the purpose was to understand the research participant's (PE teachers and students in upper secondary school) situation, thoughts, feelings and actions, in their natural surroundings, in a field where more research is needed. The aim was to understand the research participant from their own perspectives and to generate qualitative data which further could be used to develop knowledge and descriptions of their life world (Kvale & Brinkmann, 2010).

The study design, which provides a framework for the generation and analysis of data, was mainly influenced by the aims of the study, the research question and the theoretical perspectives. Also feasibility and practical considerations needed to be taken into account when developing an appropriate research design (Bryman, 2012; Green & Thorogood, 2004). The design for generating evidence should be suited both for a certain set of criteria and to the research question, which in this study required an investigation of social processes

and how these might be important in mental health development. The study design applied in this research is therefore in a cross-sectional design.

3.3.1 Research question and objectives

The main research question was “How do physical education teachers work with young people, and what are the implications of this for young people’s mental health development?” The objectives considered describing and explaining social processes and impacts experiences of PE and interactions during PE might have on mental health development of young people, to understand and be able to see the potential connection between PE and mental health development, emphasising the role of the PE teacher. The research question and the objectives that were investigated could best be examined and answered by approaching it qualitatively through semi-structured interviews, observations and focus group. The choice of methods is further discussed in the following sections.

3.4 Choice of methods and sample

Methods are tools, but they have consequences for the extent to which it is possible to answer the research question with ingenuity and incisiveness (Charmaz, 2009). When choosing a data generation method for research, awareness of the range of approaches and methods that can be used in social research is needed, to make the most appropriate choice for the new study, which also needs to be feasible within the study’s framework (Bryman, 2012). The choice of methods influences what we see. How data is collected affects which phenomena you will see, and what sense you will make of them. This research therefore, depends on my choices of methods and on me as a researcher (Charmaz, 2009).

This was an exploratory qualitative study, based on inductive grounded theory. In conjunction with the aims and objectives of the study, the most appropriate data generation methods were interviewing and observation. The study sought to understand and generate knowledge about parts of the social world through examining the participant’s interpretation of that world (Bryman, 2012). It is generally understood to be the case that mental health is generated through many types of social processes and experiences (Mæland, 2010). Based on this, semi-structured or in-depth interviews, focus groups and observation were viewed as appropriate methods for the purpose of the study. The choice of methods also demands that the researcher think about the sample to be investigated (Kvale & Brinkmann, 2010). There

are different ways of thinking about sampling in qualitative research – but the emphasis tends to be on purposive sampling, meaning that the research questions are placed centre stage when considering the sample. The sample was not chosen on a random basis, but the participants sampled were relevant to the aims and research question that were posed (Bryman, 2012). In this study, there was also an element of convenience about the sample chosen, meaning that the participants were selected because of their availability to the researcher (Bryman, 2012).

In studies like this, new objectives may be developed through the study process, which can lead to adjustments in the use of methods, and a need for further data generation throughout the study (Charmaz, 2009). Initially, the data were generated through qualitative interviews, focus groups and observation. In this section, details on the sampling and the different data generation methods and some thoughts about the data analysis are presented.

3.4.1 Sampling of context and participants

According to Bryman (2012), anyone that the topic of a study is relevant to could be appropriate participants. With this in mind, the sampling of this study was based on who had experiences relevant to the aims of the research, which was both adults working in the settings of investigation and adolescents whom which they work with. This strategy of sampling is purposive, meaning that the research question gave me guidelines as to which people needed to be focused the attention on to be able to answer the research question (Bryman, 2012). To use colleagues and contacts is a known tactic to access a closed setting, like a school (Bryman, 2012). As an employee at the school of investigation, I had potentially easy access to a relevant context and to appropriate informants, which was the basis of choosing this particular school.

It also had to be considered how many participants for the individual interviews, focus groups and observation were necessary to be able to answer the research questions. When doing studies with focus groups as the only method of data collection, Bryman (2012) argues that the appropriate number of groups is reached when the researcher reaches the point where it is able to anticipate what the next group will say. In this case, it was a little different, mainly because other methods also provided an amount of data, and because of the timeframe and range of the study, being a Master thesis with limited amount of time and resources. Two focus groups consisting of five students in each were chosen. All of the

informants in the focus groups were 16 or 17 years old, and in their first year on upper secondary school. Both sexes were represented in the two groups. One group consisted of students attending the academic and sport course and the other of students attending a vocational course. The different educational choices of these students indicate that they have different relations to PE and to sport and physical activity in general. Most students attending the sport course are participating in competitive sports outside school, whilst less of the students at the vocational courses do, which also were the case of the students that participated in the focus groups. This may shed light on the topic of interest from different angles. The informants in the focus groups were judged to be open, talkative and reflective, and they were represents that could exemplify the group of interest, and because they could provide data relevant to the research question (Bryman, 2012). I chose to conduct one focus group from a vocational course and one from the sport course to ensure a wider variation in terms of their experiences of PE, which is the field of interest (Bryman, 2012). All the students participating volunteered when their classes were asked to participate in a focus group. To shed light on the area of investigation from different points of view helped seeing it from different angles.

In-depth interviews with seven PE teachers were carried out. The teachers were sampled because they are experienced, trained in, and taught PE at the time of the interviews, at the school. Both sexes were represented (four males and three females), and the ages of the teachers were from 37 till 50 years old. Also their availability and willingness to participate, as colleagues of me, influenced the selection of teachers to the interviews, thus there were not more than nine PE teachers employed at the school at the time of the research, which also was a limitation to the selection of participants. The seven teachers that were interviewed were those who teach PE most lessons a week.

3.4.2 Observation

In addition to the interviews, non-participant observations during physical activity and sports lessons were carried out. This allowed the social interactions and the social climate and setting within which the PE took place to be described. Observation was used to document social life in its natural state; that is to say, to document what happened in the everyday context of this study, rather than in research ones (Green & Thorogood, 2004). Non-participant observation offered another great potential for qualitative analysis. To add observation to the study provided data on what the research participants did, as well as what

they said they did, and it provided access to social interaction with minimal intervention in the field. Since the study aims to describe and understand what was going on in a particular social setting, observation in addition to the interviews allows the researcher to document social life in its “natural” state to a greater extent, and give another way of producing empirical and reliable data for analysis (Green & Thorogood, 2004). This was particularly interesting considering objective 3, which is to understand and describe potential connections between physical activity and mental health, but it also helped to shed light on the other objectives. As an employee at the school I had access to social settings that were relevant to my research question. Seven observations were conducted, with the same teachers that were interviewed. The observation took place in lessons where the PE teachers organised different types of physical activity and interacted with the students, both one-to-one, and as a group. PE lessons focusing both on low threshold physical activity and on competitive sports were settings for the observation. From 20 to 30 students were present in the lessons of observation, which all lasted for approximately 75 minutes. All observations were conducted prior to the interviews, to be able to see if there were differences in the social climate and interaction between teachers and students, e.g. the objectives of the study.

Field notes were taken during observation, mainly focusing on the PE teacher’s feedback to the students, the choice of activities, the social interactions between the teacher and the students, and the social climate in the group. An observation schedule was used during observation (Appendix 5). Immediately after the observations, more notes with interpretations and thoughts of situations that occurred during the lessons were taken. With the purpose of not intervening in the lessons, non-participant observation was carried out, rather taking a passive role observing from the side lines. The teachers and the students were aware of my status as a researcher during the observations. A limitation to this might be that my presence affected the informants to act differently from other lessons (Thagaard, 2009). However, being a non-participant observer also had advantages in that it allowed a more detached perspective to be developed because there was little emotional involvement. This also allowed careful and detailed note-taking.

3.4.3 In-depth interviews with PE teachers

The in-depth interviews that were carried out were planned, flexible conversations with the purpose of obtaining descriptions of the research participants’ life world, relating to their interpretation of the meaning of the phenomena described (Kvale & Brinkmann, 2009). The

interviews provided insight into how the research participants viewed the world. The interview process was flexible, but still involved a degree of structure through the use of an interview guide (Appendix 1); this comprised a list of questions or topics to be covered to generate in-depth information about the specific areas of interest. When using grounded theory, it was emphasized that it was important that the researcher did not start the interview process with too many preconceptions, and let the research question and the objectives form the basis of the interview guide. When preparing the interview guide I was careful to formulate the questions and topics to the interviewees, so that they would help me answer the research question, and to use a language that was comprehensible to the people who were interviewed (Bryman, 2012). The questions did not follow exactly the interview guide. Questions that were not included in the interview guide were asked if the informant responded with points worthy of following up (Bryman, 2012). The purpose of the interviews were, based on objective 1 of this study, to explore how PE teachers work with young people with specific reference to social climate, choice of activities, acting as role models, and so on.

Before the interviews I prepared myself to listen, to be flexible, clear, open and not judgemental to the PE teachers' responses. All the interviews were recorded and transcribed verbatim, and took place in a setting considered confidential for the informants. The setting of the interviews was at the school in rooms that were quiet and private so that the informants did not need to worry about being overheard. The interviews lasted from one, up to one and a half hours. A pilot interview was conducted to test the interview guide, to ensure that the focus of the interview covered the area relevant to the research objectives, and to gain experience since it was some time since I had done interviews (Bryman, 2012).

3.4.4 Focus groups with young people

Focus groups, where the researcher facilitates a discussion between a number of people on specific topics of interest, were used to generate data that could help see the world through the eyes of the people being studied (Kvale & Brinkmann, 2009; Bryman, 2012). Focus groups are characterized by the focus on generating various views among the group on the specific topic. Still, the intention was not to agree upon solutions on the topics of discussion, but to generate various views and in-depth information on these themes (Kvale & Brinkmann, 2009; Bryman, 2012). The focus groups offered a way to study meanings of social phenomena that occur in the interaction of everyday life. The focus group sessions

were run by a moderator or facilitator; in this case it was me as a researcher, who guided the group through the fairly unstructured setting of discussion (Appendix 1), without being too intrusive (Bryman, 2012). These kinds of interviews are suitable for research which deals with sensitive and emotional topics, and the group interaction can help to generate views that it in a one-to-one setting might be harder to access (Kvale & Brinkmann, 2009). In this study it was done focus groups with adolescents, who were students at the school, in two groups of five participants. Typically, the focus groups last between one and two hours (Green & Thorogood, 2004). In this case the focus groups lasted for approximately 70 minutes. The participants were 16 to 17 year old peers that knew each other before the focus groups, when they were classmates. They also knew me, as I had taught them before. This might be perceived as safer for the participants, and could allow them to be more open and share more in-depth information related to the topic. Thinking of the aims and objectives of this study, it was necessary to generate data not only from the PE teachers, but also from the students with whom the teachers were working, to see the world through the eyes of both of these groups. The focus groups explored how the young people experience school PE in relation to resilience, self-esteem, and so on, which the study's objective 2 aims to describe and understand.

The focus groups were conducted in the informants' classrooms, with no other people present. The informants were placed around a table, facing each other, rather than me. This made it easier to study the processes that were constructed within the sessions, and easier for the informants to discuss with each other. The focus groups was recorded and transcribed, using the same way of progress as with the teacher interviews.

3.5 Data generation – implementation and experiences

The field work took place from October 2012 until January 2013. The in-depth interviews were conducted during working hours, when the informants had time. The times of the interviews were agreed upon several days in advance, but after they had received letters of information (Appendix 3) and responded positive to participate in the study. The information letter was sent to all PE teachers, not only those who were participating. In advance of the interviews I made sure I was familiar with my interview guide, and that my questions were clear and focused, but not leading. In this matter, experiences from the pilot interview were helpful. During the interviews I focused on listening attentively, to remember what was said,

so that I was prepared to ask questions to provide even deeper information related to themes the informants were especially eager to talk about (Kvale & Brinkmann, 2010). When needed I asked if I had understood the informants accurately, while at the same time trying not to impose other meanings on them. The focus groups were also conducted at school, during school hours, when the students did not have classes to attend. No pilot focus groups were carried out, because it was more difficult to arrange informants for a focus group, and to find a time to conduct it. Therefore, the second focus group generated more data than the first, when I had gained experience and made small adjustments in the interview guide. Conducting two focus groups made it possible to compare and contrast the perceptions of vocational students with the academic sport students. To do both teacher interviews and observations, and focus groups with students enabled me to see differences in areas of emphasis of students and teachers, which have improved the validity of the study.

3.6 Analysis and interpretation of data

This section explains how the processes of organizing and analysing data were conducted, and how the qualitative grounded theory approach was utilized in this process. Experiences gained throughout the process of analysis and interpretation will also be focused upon.

When using the data collection methods described above, consideration related to both what people do and what they say they do were possible when doing the analysis (Bryman, 2012). Doing both interviews and observations helped taking this into consideration.

The analysis of qualitative data relies on both rigour and imagination (Green & Thorogood, 2004). Grounded theory was used as a framework for the analysis. This is an approach that is both inductive and deductive, moving back and forward between emerging theory and data, as a method of constant comparison, but in the end the analyst grounds the theory in the data, and goes back to the literature as different concepts emerge. In this way, it was possible to maintain a close connection between the data and conceptualization, with concepts representing real-world phenomena being elaborated (Bryman, 2012). The analysis of the qualitative data focused on understanding and interpreting “the meaning” of the data, and aimed to let the participants “speak for themselves”, and tell the story from their point of view (Green & Thorogood, 2004). As indicated above, key theoretical concepts were used as sensitizing concepts (socialization, habitus, and so on) and guided the questions that were asked and the focus of observations, as well as the analysis of data. However, there has been

an on-going interaction between theory development and testing out ideas from theory. This has been a suitable way of proceeding, and made it feasible in terms of dealing with current knowledge of the field while developing theory gradually throughout the data generation process. The aim was to develop a valid account of the phenomenon grounded in the data, and not impose theoretical ideas on the qualitative material.

3.6.1 The analysis – step by step

Qualitative coding, line-by-line to break the data up into component parts, were used to analyse the data, meaning that segments of the data were categorized as the first step in moving beyond the concrete statements in the data, towards making analytic interpretations. The coding became the link between the data generation and the development of theory (Charmaz, 2006). The process of analysis started with organizing the data from all three methods of data generation. The next step after conducting, transcribing and translating the recordings from interviews and focus groups, was to read them again, several times, and then make notes. To organize and categorize the data I developed codes of different colours, each colour identifying data that I saw as potentially interesting in relation to each of the sensitizing concepts, and different colours that identified data that suggested other conceptual possibilities and ideas. The categories, sub-categories and illustrating quotations were placed in a table, to make the data material more clearly in the process of analysis. The connections between the data and the concepts discussed in Chapter 2 helped to identify which concepts from previous research was most prominent in the data from this study. Still, it is not possible to be sure that the codes capture the reality, being the view and understanding of the researcher (Charmaz, 2006).

Through this process points of view and perceptions that were common among the majority of informants, and also statements that were not common to the majority, but rather more critical and personal in nature, were identified. This method of organizing and categorizing the data was helpful when working with long transcriptions, and was a way of creating theoretical links in the work of analysing (Charmaz, 2009; Kvale & Brinkmann, 2010). All the way I tried to read the answers from the interviews with an open mind, as far as possible maintaining the points of view of the interviewees in my statements (Kvale & Brinkmann, 2010). Further into the process, the analysis started to go deeper than reading what has been said by the informants. The interpretation then provided meanings that were not immediately presenting themselves in the text, but were more abstract representations of what had been said.

When I started writing the findings Chapter, I tried to stick to the order of the concepts in Chapter 2. I focused upon holding the coded transcriptions close, in order to not distort the original meanings of the interviewees, or lose sight of the bigger linkages in the data when focusing on the smaller components. To maintain both the “pieces” and the “whole picture”, I re-read interview by interview several times throughout the process of analysis.

The field notes from the observations were most helpful in giving insight and developing an understanding of the practical examples the informants’ used to explain and support their points of view, and to be able to give relevant examples from the field of study when analysing data.

3.7 Ethical considerations

Studying people and their experiences through in-depth interviews, focus groups and observations generates potentially sensitive information that requires ethical considerations on different levels. The participants in the study needed to be informed of what the research was about, what the data material was going to be used for and be reassured of their anonymity and rights as participants.

To carry out any research requires the approval of an ethical committee; in Norway this means that approval from the NSD (Norwegian Social Science Data Service) is necessary prior to the start of field work. The researcher is obliged to give notification if collecting data which directly or indirectly can identify a person (Norsk samfunnsvitenskapelig datatjeneste AS, 2012).

When the NSD has approved a study, the ethical considerations do not stop. Informed consent and confidentiality are core principles within research ethics. The principle of informed consent includes that research participation should be based on voluntarism and a full understanding of the implications of participation, which requires that the researcher gives the participants detailed information both written and oral (Kvale & Brinkmann, 2010). Also confidentiality is a key criterion for ethical practice, which means that information gained from research should not be included in other settings, and that the privacy and identity of sites and individuals should be protected and secured (Green & Thorogood, 2004). This means that you must destroy all collected data material at the end of the study (Kvale & Brinkmann, 2010).

The possible impacts of the research have to be thought through, especially when the research regards sensitive topics, and deals with minors (Green & Thorogood, 2004). When researching children and young people, specific precautions are needed. The researcher then has a responsibility both as an adult, and as a researcher – for example if an interview indicates that a young person is at risk in some way, is the person's safety or their privacy the primary duty of the researcher? If the children are under the age of 18, permission from their parents is needed. It might then be difficult for the young people to refuse participation. This could have made it difficult to know if their participation truly was voluntary (Green & Thorogood, 2004).

These ethical requirements were met throughout the study, even if the study was considered 'not notifiable' by the NSD (Appendix 4). In advance to all interviews and focus groups, the participants received both written (Appendix 3) and oral information about the research project, the purpose of the study and their rights as participants. They all gave their written consent (Appendix 2) to their participation, regard to the minors their parents or caregivers gave their written consent on behalf of the adolescents that also orally confirmed their voluntary participation. After finishing the transcriptions the records have been deleted, and in notes from observations it is not possible to identify persons or personal information.

4. Presentation of the findings

In this section, the findings of the data generated are presented. The findings are organized in categories by different codes. The research participants' views, quotations from interviews and focus groups, and data generated from observations are sequentially linked to the different objectives of the study and the codes; the widely used concepts explored in Chapter 2. Next, the most outstanding findings in conjunction with the main research question are highlighted.

How the coding and categorization were done, is illustrated in the table below. To code in grounded theory means categorizing data with short names, to sort, select and separate the data (Charmaz, 2006). Through this process I defined what the data were about, moving from the concrete statements to analytic interpretations. The categories explains what the data is about, connected to the sensitizing concepts, while the sub-categories describes different views on the same category. The categories and sub-categories shows what sense is made out of what has actually been said, while the quotations are used to illustrate the analysis. A code is typically "PE differs from other subjects". It is sticking close to the data, and indicates how the researcher interpreted the informants' sayings (Charmaz, 2006).

Social relations and social climate: the student-teacher interaction		
Category – what it is about, explanations	Sub-categories – differences	Quotations that illustrates categories and sub-categories
PE differs from other, theoretical subjects <ul style="list-style-type: none"> - in terms of the kind of relationships it was possible to form through the interactions between teachers and students in PE - this could be perceived both good and bad by the teachers 	PE generates different kinds of interactions <ul style="list-style-type: none"> - teachers being more part of the class - ... 	<i>I think that PE teachers often come closer to students than teachers in other subjects do [...] it is more emotion in what we are doing (PET1).</i> <i>I think that the social relations may be stronger among those who engage in physical activity than between others. For better or worse (PET3).</i>
	Interactions can also have negative consequences <ul style="list-style-type: none"> - conversations perceived negative and disrespectful... 	<i>In middle school, I have never liked my PE teacher particularly well, because she was cranky [...]. Also she spoke badly of some students to other students, in front the one it was about (FGA2).</i>

TABLE 1: Coding and categorization of findings.

When referring to the informants they have been given “fictitious names” to distinguish between them, to make it clear which informant said what, and to maintain their anonymity. The PE teachers are called PET1, PET2, and so on up to PET7. The first focus group is Focus Group A (FGA) and the second Focus Group B (FGB). The students have been given numbers – FGA1, FGA2, FGB1, FGB2 up to FGA5 and FGB5.

4.1 Social processes in PE teaching and mental health development

The PE setting was valued as an arena of learning and social interaction between students and teachers. The teachers thought that teachers and students got to know each other and interact differently than elsewhere in school life.

Mastery turned out to be a concept that was widely used by both teachers and students. Mastery refers to individual’s perceptions of abilities to influence and control their environment. Young people’s sense of mastery is often connected to role models that can provide them with a sense of mastery over their lives and surroundings. The ability to gain mastery over a situation includes perceiving an event as being within one’s control (Lipschitz-Elhawi & Itzhaky, 2005). Martinsen (2004) suggests that feelings of mastery in one situation might transfer to other areas of life, increasing the belief of, for example, avoiding health compromising behaviours. He also suggests physical activity as a method of increasing self-efficacy – the belief in own abilities to master – because physical activity provides opportunities for positive experiences of mastery. Still, repeated experiences of failure are likely to decrease self-efficacy. In this context, the mastery concept is often utilized when talking about coping with different sport skills in PE, and explaining what kind of feelings this might generate.

The kind of connection that appeared in this setting was considered important by the students because it led to learning. It was also emphasized that there was a need to be interested in creating such kinds of relationships, from both sides. Communication was an important aspect of the social processes through which learning took place in PE. This cut both ways – poor communication decreased learning, interest in learning and motivation, whilst communication considered satisfying generated more learning. For the students, good communication was about being allowed to ask questions, receiving answers, to feel the

teacher's interest in them as people, and that messages were given in a form and language that they understood.

The teacher has to be good at communicating with the students. If the teacher does not talk to us as normal people and are not interested in us, we do not care to interact with the teacher either, and do not learn anything (FGB1).

For teachers, talking the "students' language", to be receptive to the students and to catch their interest were also important to develop good communication. They found it challenging to establish two-way communication with all students, because the groups tended to be bigger, which made it especially difficult to create situations for good and effective communication. The teachers were anxious that the consequences of this could be that some students' learning outcomes were reduced, and that it could be demotivating not being heard and seen.

The social climate has to be open and receptive. Some students will always be quiet because they do not dare to talk, but I want it to be safe for everybody to ask questions and speak their mind. It is hard in big groups; I don't have enough time to have real conversations with all students. I guess some students feel ignored, which is really bad for their motivation of learning, and also what they really do learn from us teachers (PET1).

In some cases the communication between teachers and students could be perceived negative, and give adverse outcomes. The students talked about teachers that communicated negative values to them, through showing a bad attitude towards some students, then especially those who were not good at PE. This could involve teacher comments about skills or appearance that students perceived rude, and teachers not behaving towards students as they felt that it was expected of them to behave towards teachers. The students anticipated that when a teacher mediates negative values and has a disrespectful way of treating them and communicate with them, it could become damaging due to their communication with each other. This could also be connected to equality – being treated as others would expect to be treated.

No, if it is ok for the teacher to be rude to us, it gets ok for us to speak to each other in the same way, which really is not good. It kind of could turn into the normal way of talking, to pick at each other all the time (FGA5).

Nevertheless, the teachers saw themselves as role models and possible influencers of current and future habits due to physical activity and health of the students. The teacher thought it was important that they during their limited time with the students gave the students a foundation for being physically active throughout life. This, to contribute to the formation of healthy habits in the long-term was considered far more important than the more ‘academical part’ of the teacher’s role, developing skills and help the students achieve good grades. Teachers thought that to be *only* in their professional role, working to reach the formal aims of the tuition was not enough – they wanted to be able to give the students input on a more personal level. It was also commented on that the extent of PE each week was not sufficient to do this, and to achieve positive health outcomes at the present time. To create an interest and commitment to physical activity that could contribute to healthy lifestyles in a longer-term perspective was nevertheless considered possible. To give inspiration through passing on knowledge about health and exercise, and arrange activities that the students liked were also seen as important by the teachers. It seemed like the teachers saw enjoyment and fun in PE as fundamental for PE to affect students so that physical activity could become a future habit and desire of the students.

One hour of PE every week is not enough to do something good for the health of a person. We should have had one hour every day, if this should affect the health of a person. But to create an interest which may be permanent is possible (PET7).

The role of the PE teacher is in relation to the future, because the teacher role, me in the teacher role is just something they encounter in three years, while they bring some of the knowledge and experience with them, and then I might have helped to inspire the next 60-70 years of their lives. So it is a basis for the future really (PET1).

In order to create a permanent interest for physical activity the teachers thought that offering low threshold activities, or many different activities, in their lessons was important. To offer a broad spectrum of different sports or activities were considered important so that all students could experience mastery and find an activity that they would want to keep on doing after they finished school. That the activities were perceived as fun and varied was important. Teachers were aware that their students did not always experience PE in positive ways. Regarding students that had problems to settle in, and did not like PE because of former experiences, the teachers saw it as their job to try to give these students positive PE

experiences in safe environments. The effects this could have in a long-term perspective were seen as important.

Regarding the group of student that I teach, many of them have bad experiences with PE from before. Then my role must be to try to change this, and create a sense of security, keeping the threshold low so that it is possible to experience mastery without having to be a world champion. Then they might want to continue doing some kind of physical activity. It might not have any effect here and now, but for their future it is important (PET4).

The students also thought it was important for their future participation in sports that the activities in PE were varied and not too difficult, e.g. the low threshold activities as also emphasised by the teachers. For the students this was important because they thought that all students should be given the opportunity to be seen when showing their strengths – it was considered important that all students got to show others something they were good at in PE, and that it was not the same students experiencing mastery every lesson.

If we get to do many different activities everybody gets to show that they can do something. If you are bad at football, you can be good at dancing or aerobic (FGA4).

If the teachers often choose activities that only favoured a few students, the students thought it could have negative consequences due to their participation in PE, and their present physical activity habits. The students thought that a narrow range of activities makes PE boring for many students, and that it might create barriers for participating in PE. They seemed to find it important that the activities were fun and manageable. This was essential for students to want to come back to PE lessons.

If I know that next time we are going to have an activity I like, it is ok to have endurance training this time. But if I know the next lesson will be just as boring as this one, I would not come (FGB3).

Even though the forward looking focus of life-long habits was common among the PE teachers, the focus groups did not generate much information emphasizing similar aims of PE. The students did not focus particularly on future effects of PE participation. Their focus was rather on how physical activity and the teachers' involvement and behaviour affected them at the present time.

The students emphasised the teacher as a role model. They wanted the teacher to stand up like a good role model and a person of inspiration to them. In this case, they thought that the teacher should be a person they could look up to and be like them in the future. The teachers' mood, approach and encouragement were important to their motivation, and to the effort the students put in. A positive and engaged teacher, behaving good to all students and meeting them with a smile and a positive attitude, increased effort and made students try harder, while a negative teacher approach decreased effort in PE.

The teacher's attitudes are important for that. How he behaves towards all students. The teacher is supposed to stand up as a good role model, as a person that we would like to be like when we get older (FGB3).

The same points were made by teachers. Enthusiastic teachers were considered important to get the students to make an effort and enjoy PE – negative attitudes and a visible lack of interest in the subject, and no enjoyment of physical activity from the teacher's side, the teachers thought could transfer negatively to the students and their commitment to PE. To be able to transfer positive attitudes to physical activity, the teachers saw both their body language and their own enjoyment of activity as influential of the students' enjoyment of PE.

You must have an enthusiasm, it must be visible that this is something you are very interested in yourself, and the value of physical activity must be shown in what you do and what you say (PET6).

4.2 Social relations and climate – the teacher-student relationships

Both the students and the teachers who participated in this study emphasised the social relations as important for students' wellbeing and participation in PE. The interviews and focus groups brought forward indications that relationships between the students and the PE teachers in this study might be connected to the development of positive mental health in adolescents, in a number of ways.

The PE teachers and students saw PE as different as other subjects in terms of how the subject had the potential to generate different kinds of relationships through teacher-student interactions. The students commented that the different kinds of interactions were connected

to the teacher being more part of the class. A consequence of this was that the teachers were more likely to get to know them. The teachers also thought that they met students in a different way in PE compared to other theoretical subjects. For example, there was general agreement in one of the focus groups when one student commented:

I think we get to know the PE teacher better than many other teachers, because the PE teacher is being more like a part of the class (FGB4).

In the focus groups, the students described their relationships to different PE teachers in relation to how they perceived the teachers, and the teachers' moods and ways of talking to and about them. The conversations between students and teachers in PE could in some cases be perceived as negative and disrespectful, this tended to be in terms of teachers speaking badly of students and their performances in PE, also in front of others. One student gave this example:

In middle school, I have never liked my PE teacher particularly well, because she was cranky [...]. Also she spoke badly of some students to other students, in front of the one it was about (FGA2).

The relationships that develop within PE were mainly described by teachers and students as close and friendly, in different ways. Teachers meant that there was emotional involvement in the relationships, moving from the traditional teacher-student relationships, towards more friendly relationships. For teachers, being seen as a person that the students could feel confidence in, rather than "just a teacher", was important so that the students had confidence in them.

I think that PE teachers often come closer to students than teachers in theoretical subjects do [...] it is more emotion in what we are doing (PET1).

The students also described the PE teachers as closer, or different from other teachers. They emphasised that for them, PE teachers got to know them better as important. Revealing personal information about themselves was seen as an important aspect of developing closeness. The students also found it important that teachers viewed them as young people – not "just students". The following quotations also suggest that the students had a level of emotional involvement with PE teachers, which were experienced as different from relationships with other teachers:

I think we also have to say more personal stuff to the PE teacher. If we are sick or have some reasons for not participating in PE, or feel shy doing an activity because I feel fat doing it or something. Then the teacher gets to know us in another way (FGB5).

Yes, if for example I've got my period and have stomach cramps, I don't feel shy to tell the PE teacher. But I would never say that to the math teacher, that would be too embarrassing (FGB4).

Further it was reflected on how and why the type of relationships the students had to the teachers affected them. To reveal personal information were by the students related to a process through which PE teachers develop understandings of the young people, and because of their understanding they could accommodate their behaviours. The students also emphasised that they in PE were allowed to 'be young people' – laughing, talking and making noise. That the teachers also were part of this kind of interaction further developed closeness between students and teachers – through emotional involvement with each other:

Yes, and in PE we are allowed to talk, to make noise and to laugh. And the teacher takes part in that. We are kind of more at the same level, so it is easier to tell stuff that is kind of personal. Then you avoid like getting bad comments that you are lazy, when you really aren't (FGB1).

Understanding of the students' everyday lives was for students and teachers seen as being a good basis for a "functioning" relationship. This could involve the identification of shared interests and include the teachers getting to know what students did beyond school and in relation to the non-sporting dimensions of their lives, such as what kind of music they liked. PE lessons provided opportunities for the teachers to ask questions about what the students were interested in. In turn, this again showed students that teachers were interested in them as "people", not merely as "pupils" who were there to be taught. Teachers were aware that this had to be the basis of a genuine and honest relationship. As a consequence of this, they more often had something to talk about with the students because there was a better understanding of students as people with broad and interesting lives.

It can be just common taste in music that creates good relationships. If I think of it, I know more about the music taste of my PE students, than of those I teach in different

subjects. Maybe that says something about how close you come. You have more to talk about (PET4).

Talking and listening was by the teachers seen as an important dimension through which a better understanding of pupils was achieved. Humour was highlighted as a particularly significant aspect of these interactions, and was also very prominent in the classes where observation was conducted. In PET4's lesson one student made jokes about her own failure to perform a certain skill in gymnastics. The teacher then attempted to perform the same skill, and failed the same way the student did. The interaction between the teacher and this student seemed to be effortless and the approach of using humour seemed to neutralize the feeling of failure, and bring the student closer to the teacher – being more at the same level, having fun together. Being at the same level also entailed the teacher not just looking at the students, but involving him or herself in conversations and activities.

It must be allowed to fool around a bit. To make jokes and stuff. It gets a bit boring when the teacher just tells us what to do, and then just stand there looking at us doing it. Also if we are laughing and joking a bit, then the teacher just stands there watching. It's good if the teacher can laugh and fool around a bit too (FGB4).

If I think of my own childhood, it was the teachers who listened and had time for you, you had confidence in and respect for. That gives positive relationships (PET1).

Both students and teachers seemed to find it important that they share the experience of PE with each other by both participating in the activities. The quotations show that the students saw the kind of relationship they developed with their PE teacher as quite fundamental to their motivation. To this case, there were two sides; a difficult relationship with the PE teacher reduced motivation, while conversely a good relationship increased the motivation and strengthened the wish to do well and achieve in PE. The teachers also found their own participation important to the students' motivation, alongside with to show that they care about the students.

To show that you are with them, that creates a social thing. Are we running outside, I run with them. It is all about that you care about them (PET2).

Both for teachers and students the good relationships were about including all students, regardless of their PE skills – this was viewed as an aspect of fairness, care and respect. Fairness and equality was a strong dimension of how the students and teachers talked about relationships and motivation. Typically, the students pointed out that they expected teachers to behave towards them in the same way as it is expected the students should behave towards their teachers. Politeness and kindness were key words in that case. It seemed that the students had a wish and expectations that they should be treated as grown-ups and as equals in relation to the teachers, but agreed that this was not always the case. These dimensions of student-teacher relationships were seen as important for motivation.

[...] that you are perceived as fair and square to all students, and that everybody, even the quietest little girl in the corner find that you actually care about her development and welfare is very important (PET4).

Emotions were an important aspect of relationships, not just in relation to having fun, but also in relation to feeling good about themselves and PE, and wanting to enjoy sport and physical activity both in and out of school. Teachers, for example, talked about the importance of developing positive emotions about PE over and above skills development. For example, one teacher said:

[...] my main task is to make the students get a good feeling [...]. Good feelings and that they keep on enjoying physical activity [...]. This is far more important than developing sport skills (PET3).

Students elaborated *why* equality was important to them, and what the consequences would be if student were treated unfairly. Unequal was viewed as generating feelings of uselessness, worthlessness and exclusion among students who felt themselves to be treated as less worthy by teachers. This had a knock-on effect for their motivation for being active in PE, which decreased.

I had a teacher that did not treat everybody equally. That lowered my motivation in any activity; I did not care to do my best because it didn't matter. This teacher was not particularly well liked (FGA5).

Poor relationships tended to be seen in terms of the favouritism shown by a teacher to other students, particularly by those who were not good at sports. Students did not feel good if

they were not praised, or if they felt excluded in this way. Not receiving as much attention as other students; not being one of the teacher's favourites seemed to make these students feel less valued. This could be in terms of that students not being into sports outside school felt less worth to the teacher.

The teacher I talked about only liked the students who were athletes; they were the best no matter what. While those who were not athletes, she thought were bad no matter what. She had decided in advance, that we were useless (FGA5).

Observation made it clear that the feedback and praise given from teachers during activities had an immediate impact on mood and effort of the students. The many positive and encouraging comments from PET2 during the lessons observed created high levels of activity throughout the lesson, even though failure was a part of the lesson. All 26 student names were used by the teacher, and the students were encouraged to praise each other. Again, the word care is used, and this teacher was the only one mentioning the creation of student-to-student relationships as important.

You need to really listen and care about them. This is also about teaching them to have respect for others, and be able to create social relationships between students (PET2).

4.3 Resilience

The term resilience was not used by the informants, but the informants cited skills and capacities that were comparable to or entailed similar meanings to this term.

The teachers thought the ability to cope with adversity was important. They thought that their ways of working and the experiences young people got from PE could have both positive and negative outcomes – which means could both strengthen and challenge young people's ability to master difficult situations. The teachers agreed on what they thought they had to do for creating positive situations in which the students could be challenged and succeed; give *all* students tasks they could cope with. In practice they found it more difficult to implement, because every student comes into PE with different starting points. The teachers also saw their positions of power, including strong impact on students, as quite outstanding in this matter, putting them in danger of doing great damage to a student's self-

efficacy through moments of thoughtlessness in comments or choices of activities. On the other hand, if students experience success and mastery in PE, teachers thought it could encourage them to take on the challenges of life in general, with a belief of overcoming them.

I can give them tasks they are coping with, but we have so much power and can also break a person down if we kind of do not play our cards right. I know that after having been a teacher for so many years, it is not everything I have said and done that is as wise as I hoped for. I hope that there are not some of my students that are left with large scars in their souls. But I could have taken the belief in mastery away from students, I could have had a negative effect on how they are dealing with struggles now. But also the opposite I hope – some students I might have given courage to meet life (PET1).

Pressures and expectations that students experienced in their lives, both from other people and from the students themselves were viewed by the teachers as often unrealistic and hard to deal with. The teachers thought PE experiences that were positive could contribute to develop the students' life skills when it comes to dealing with pressure and master life stressors they will face both inside and outside of school. The sense of mastery was consistently a prominent dimension of how teachers talked about PE and development of the students' resources to achieve positive outcomes of PE due to overcome other life incidents. This can be related to a learning process where students are being challenged and experience success, which in turn could generate feelings of control and a faith in own abilities to master the surroundings, both at school and outside, in which they live their lives at present time, and will do in the future. When students experienced being seen through the recognition from others, teachers saw it as potentially reflective of how the student in turn recognized his or her own successes.

I think youth have to deal a lot with pressure from outside. Expectations from the people around you, and the expectations you have created for yourself. And they are often higher than what is realistic and what you can achieve. They have to learn how to deal with all this (PET3).

In order to give the feeling of mastery to everyone in big and diverse student groups, teachers thought about what kind of focus they had in the assessment of students in PE. This

tended to be seen in terms of emphasizing and supporting effort instead of, or at least in addition to skills in the assessment. This focus was seen as essential for the students to get the motivation and strength to keep on working when experiencing failure or struggling with certain challenges. Teachers found that if students knew that their efforts to do their best, and willingness to try were part of the teacher's assessment of them, a student's feeling of putting down a big effort in PE could generate a sense of mastery in itself, even if the mastery of certain skills were not satisfying. Teachers found this difficult in practice, because it was difficult to see all students' efforts – they found it easier to assess skills through testing students. Students also found it important that they were rewarded for hard work, not only for being able to develop sport skills.

What kind of focus you have in the tuition is important. If I focus on sport skills in the assessment, I take away the motivation from some students. If the focus is more on that I see they do their best and really make an effort in every lesson, and they know that, they keep trying even if they face activities they are far away from mastering. That they experience that determination alone pays off, I think will teach them to never give up in any situation (PET5).

[...] the teacher has to take our effort to manage it into consideration when evaluating our skills. Not only that we manage to do all kinds of techniques and stuff, but that we work hard (FGB4).

The same issue was also described from other angles. The teachers thought that it was important that the students felt they had control, and that losing control over a situation could generate negative feelings, or decrease the interest in being physically active. If tasks were not manageable for the students or they felt compared to each other, or to students who did better than them, the teachers thought it could create uncomfortable situations for the students. PE was seen as an arena where students potentially could experience uncomfortable situations and feelings of shortcoming to the demands and expectations. The teachers were afraid that if they were short sighted in how they planned, implemented and gave feedback in PE – in their ways of working with the students; it could put students at risk for developing vulnerability in the face of difficulties both at the present time and in a longer-term perspective, both at school and outside.

If I every lesson presents a student with things he or she cannot do, then I am afraid that I ruin this student's interest in physical activity for ever. And even worse, I can make the student feel not good enough, and that this feeling kind of transfer to other school subjects and also outside school (PET3).

According to the teachers, an important part of their role was to facilitate for the students to acquire skills and basis they need to function in their everyday lives and in their working life as adults. Nevertheless, they also saw limitations to their role in terms of developing these skills, and emphasized the importance of the students also having supportive parents that could give them the opportunity to participate in activities that contributed to the development of such skills outside of school.

The family structures also have a lot to say. If young people have had a normal childhood, with parents who work and earn money, with boundaries and the opportunity to participate in cultural activities, play the violin or baseball or whatever. Then they most likely will develop the social skills required to cope with the challenges of life (PET5).

When the students talked about their experiences of PE, they tended to talk about sport skills connected to what kind of feelings this generated. The students also pointed out that mastery was central to experience PE in positive terms. Young people thought that teachers should show understanding of their different preconditions to master, and think through what kind of challenges they put each student up against. Too difficult tasks could mediate bad feelings, like the feeling of hopelessness. A certain degree of difficulty nevertheless was seen as necessary for them to have faith in their own abilities – to be presented with tasks that were no challenge at all could feel humiliating, and generate feelings of “not being believed in”. With this they meant that the teacher had to arrange activities that neither was too easy or too difficult. The students thought that challenges of appropriate difficulty could make them believe more in their own abilities to master – both in PE and on other arenas.

And when the teacher gives us activities that we feel we can do good, it makes us believe we can do anything kind of. But it is good if it is not too easy, so we have to work a little to make it. It makes you deal with adversity a little better maybe, and make you believe that you can do more and more difficult stuff (FGB2).

The teacher expressed a wish for the students to achieve their full potential, and to help them building up their ability and will to get past boundaries that they would meet in life. Giving positive feedback was seen as an important way of working towards this. Focus group participants saw positive feedback and teacher support as quite fundamental in conjunction with their willingness to challenge themselves in PE. In turn, when the students succeeded they got courage to take on other challenges. Conversely, negative or an absence of feedback on students' efforts tended to decrease their motivation and expectations to themselves mastering difficult tasks, both in PE and in life in general. This suggests that how and in which situations the teacher gives feedback to, and supports a student in PE, could affect the student's sense of mastery in a general manner, outside school it could for example generate feelings of not being good enough to try out different leisure activities.

I want to provide feedback when the students do something good. I want them to strive to do things as good as possible. Sky is the limit. This, I want them to take with them into everything they do in life, and not let obstacles or problems stop them (PET2).

Positive and encouraging comments from the teacher make me want to try at least. Without support from the teacher we don't get out our best because we have no faith in our own skills (FGB4).

4.3.1 Identity

The informants thought that teachers could be both supportive of, but also undermine the developmental process of identity formation that goes on during adolescence. Feedback on student performances was given in many situations and had different purposes. The main purpose of feedback, according to the teachers, was to generate positive feelings, including feelings of self-worth in the students.

The students explained how either encouraging or negative teacher comments could influence how they felt about themselves in PE, and how feedback could influence how they perceived themselves – who they saw themselves as being. In many cases, this was connected to body image or sport skills. For students that was academically weak, but good in PE, the PE teacher's comments seemed to be extremely important, and served as a reinforcement of their identities, that were closely connected to their commitment to sports and physical activity. Teacher's comments on weight or dressing also seemed to affect what

kind of person the student's saw themselves as, connected to their physical appearance. Sometimes, the teachers' well-intentioned attempts to adapt the tasks to individual students could be perceived discriminating, which in turn could feel like exclusion from the social group. Mainly, this was the view of students not being good at PE, or not being active in sports outside school.

I am not very good at school, but in PE I am. The positive comments in PE are like the only praise I get at school. I think the PE teacher is the only teacher that knows that I can do something good and think I will be anything in my life (FGB4).

Yes, and I think that if the teacher like says to a student that are bad at PE that "you can just do something else than the rest if it is difficult", it is not good, even if the teacher tries to be nice. Makes the student feel bad and not welcome as a part of the class (FGA5).

The teachers in the study emphasise the importance of awareness around their comments and behaviour in relation to the development of identity in their students. They found it frightening that they unintentionally could do harm to their students' identity formation through their feedback – for example by poorly considered comments or actions that could be experienced as offensive and hurtful by the students. The position of power that teacher's possesses they thought could reinforce any negative comment in the minds of the students, who see teachers as all-knowing authorities, and influence their identity formation. The teachers found it crucial that they at all times were conscious about what they said to students.

As a teacher you have a position of power, and you can absolutely destroy "a self". It could be unconscious, or imprudence, any comments that you absolutely should not have said, that you never can take back. It does not help to apologize either, because the damage is already done to the students' feelings. The comment can scar deeply (PET2).

Still, the teacher saw another side of this, and that if they talked to and got to know the students, were conscious and sensitive about their students' feelings and different life situations in their interaction with them, they could be perceived as supportive by the students. In turn, they could contribute positively to how the students saw themselves. This was related to teacher's caring about the students. Teachers found it important that the

student's felt certain that teachers had their best interest in mind at all times. That student's felt genuinely cared about was a part of the social interaction that teachers thought could affect the students' sense of self.

I mean that to actually tell them that you care, that you although you sometimes are angry or frustrated or whatever, the bottom line is that you care in a positive way. That you only want what's best for them. And I've gotten better at it over the years, telling them that I actually wish them well [...]. And I think it is important that they actually know that. I think that to feel cared about affects how you perceive yourself (PET4).

Teachers also connected identity formation to the success or failure the students experience in PE, and highlighted PE as a subject where both success and failure were more visible to others than in other subjects. The teachers saw it as a part of their responsibility to prevent students from getting negative experiences in PE. The teachers thought that everybody had a need to identify themselves in a positive way, and that to experience a failure in front of others could harm the identity of a student. This cut both ways – to experience success in front of others and the positive impact of this could generate feelings of a more achieved identity. The teachers saw identity as something that partly is created through interaction with others, based on the feedback and attention given to a person by others. PE was observed as an arena where feedback and comments on each other's performances were a prominent element of the social interactions. This seemed to have the power both to confirm the student's views of who they are through reinforcing feedback, for example as “a talented football player”, or confuse a student's sense of self if comments generates feelings of uncertainty around what makes them “them”. An example of this was the question “Aren't you a football player?” from the teacher when a student failed performing a relatively complex football skill. The student reacted with frustration and kept on failing. The teacher's awareness of these issues seemed to be higher in the interviews than in practical PE tuition.

The identity is in a way something you have created for yourself, but also something that others are creating, on the basis of feedback you get on things you are doing. I think everybody is eager to confirm themselves to themselves, and to others. Everyone likes to be portrayed in a positive light, and we like to present ourselves in a positive way. Both for themselves, within themselves and through the attention given to you by others (PET5).

The teachers thought adolescence was a period that brings uncertainty around who you are and who you want to be in the future. The typical problems of youth the teachers thought were related to both physical appearance and psychological distress, like anxiety and stress. They found it important to shed light on and be conscious around how the students were doing emotionally. In this period of life the teachers also found it crucial to help the students get to know themselves and find out what they want to do, through offering them guidance and advice. They were aware that many students also went through changes in their relationships to their parents, and therefore the teachers saw themselves as important adult supporters in the processes where the young people tried to find out who they are, and help lay the foundation for how they will be in adult life.

The students are in their teen years, which can be problematic with body and other psychological things that form you in youth. We have to help them to find activities that make them feel “at home” and to find out whom they are (PET6).

4.3.2 Self-perception and personal competences

The teachers thought that development of personal competences and self-perception were potential effects of PE. They found self-esteem in the students to be increasing when they were presented with manageable tasks in PE, but they saw it as crucial that they created good circumstances for these effects to appear. This had to do with what kind of activities they chose to do, and that these activities were functional in the student group they stood up against. How the students perceived themselves in sports, the teachers thought affected their self-perception also outside PE, and the other way around. If the students were satisfied with their efforts and achievements in PE, teachers believed it would give better self-esteem in general.

How they (the students) perceive themselves in sports is related to how they perceive themselves next to the sports ground. I think one affects the other. And also the other way around, how you perceive yourself outside the sports arena is connected to how you perceive yourself in a sports arena (PET7).

Mastery was found as a strong dimension also connected to various aspects of self-perception and mental health. When the teachers talked about self-perception, it tended to be seen in that in order to value oneself and be happy, one has to master something. The PE arena was seen as an arena that potentially could provide the students with the feeling of

mastery, through letting the students do activities they do well, and also through, to a certain degree, involving the students in activity choices and decision making. To make this work in practice was considered challenging, because there were many students and many wishes to take into account. However, the teachers thought that *if* all students could find an activity they enjoyed and mastered, it would lead to higher self-esteem in PE. Whether the teachers thought that self-esteem generated through PE could transfer to other arenas of life, or not, they did not say.

[...] the students get to take part in the decision making. Not letting them decide everything, but listen to them and see what might work out. That they can be part of decision making does make it easier for me to know what kind of activities they feel they can master, which is so important due to their self-esteem and motivation to participate (PET3).

Terms like self-esteem and self-image were used by several focus group participants in conjunction with PE and health. Health were described as both physical and mental, and connected to feeling good about their relationships to others, themselves and their bodies. They thought that physical activity was positive due to their self-esteem, confidence and perception of self, as well as for their physical health. Achieving goals was connected to positive feelings and self-confidence. Other skills, such as cooperation skills, were also cited to be developed through participating in PE.

[...] it is to feel good about yourself, eat healthy, sleep a lot and be active. Or if you achieve a goal, then you feel better about yourself. It is a great feeling and you get confidence. You get a little reward for the work in a way, if one achieves a goal (FGB2).

The students also highlighted a negative side to PE due to self-perception and confidence; the PE arena was also by them described as an arena where their weaknesses could become visible to others, and the students thought PE sometimes put them in situations that felt embarrassing and humiliating. These feelings were talked about in conjunction with body-images and sport skills that were perceived negatively. They tended to find it important that the PE teacher was thoughtful with regard to what kind of activities fitted with each student. They thought that if the teacher forced students into uncomfortable situations, it would have consequences for future participation in PE. If the teachers developed understandings of

what kind of activities the young people found embarrassing, students thought that many negative PE experiences could be avoided. Also this could be related to getting to know each other on a personal level. The students emphasised lower levels of self-esteem as an explanation for why some students did not participate in PE. Still, they maintained the view that physical activity was good for their physical health, but obviously not always for their mental health.

It is good for like the weight and stuff, but not always for self-esteem I think. If you are fat and not good in any sport it doesn't exactly give you better self-esteem to make a fool of yourself in front of all in PE (FGA1).

Also the teachers were aware of the potentially negative effects PE could have to the students' self-esteem and faith in themselves. Again, the teachers found mastery to be the key. When a student experienced failure, or the experience of mastery did not appear teachers thought that it lead to lower self-esteem, and a more negative sense of self.

When you do not master something it can in a way break down you and your self-esteem. So I absolutely think that this has something to do with how one experience oneself (PET1).

Students and teachers thought that PE could lead to important skill development for students. To identify each student's different strengths and reinforce these was a way of approaching this, and in turn encouraging the students to be role models for each other and learn from each other. That students could contribute in the lessons was a way that teacher thought they could generate confidence in the students. A student participating in the teaching of other students could make the student feel capable, and valued both by the teacher and by fellow students. To be valued by others, the teachers thought could higher the level of which the students valued him or herself.

The students can help each other; we can use the students with skills to make others better. They all have their weaknesses and strengths, and if we see that, they can all contribute. It feels good to help others, to feel valuable to others (PET2).

Positive feedback was in conjunction with self-esteem and personal competences seen as fundamental. The teacher and students thought that the feelings brought forward by positive feedback and the confirmation of being seen and recognized in situations where students got

to show mastery, increased the student's levels of self-esteem. Conversely, both students and teachers thought that negative feedback could do harm to the student's self-esteem and confidence in themselves. Students wanted the teachers to take notice in, and comment on the positive they did to at least the same extent to which they commented on mistakes.

If the students experiences to be seen in a situation they master, they will feel good and get confident. It feels good afterwards, and the self-esteem grows (PET2).

It is important that the teacher gives as much positive as negative feedback. There are always little things that can be positive, and the teacher needs to see that and comment on it. [...]. It improves self-esteem (FGA2).

The impression from observations suggests that the conversations between teachers and student that started with negative feedback from the teachers in several cases resulted in the student's being more anonymous and less confident their performances the rest of the lesson. Whether this lasts in a longer-term could not be seen from the observations. Several of the teachers seemed to be less careful about giving negative or correcting feedback than they gave the impression of in interviews.

4.4 The potential connection between PE and mental health in adolescents – with an emphasis on the role of the PE teachers and how they work with young people

How the students behaved and performed in school was by teachers seen as reflective of how they were doing in their private life and in family relations, especially concerning their parent relations and support. Mental health was talked about as an aspect of general well-being and positive feelings about oneself in everyday life rather than in the manner of the prevalence, or not, of diagnosed diseases. The teachers distinguished between physical health and mental health, but emphasized a positive association between physical activity and health in general, if one exercises on a regular basis. The potential PE effects on mental health were seen as depending on if PE generated feelings of mastery. Experiencing mastery in PE, that teachers thought could affect a *positive* mental health development, included mediation of various aspects of self-perception.

Mental health is something everyone has. And mental health...it can feel very difficult for young people, Things they struggle with from private life or family affects what kind of students they are at school (PET4).

The extent of PE (only two lessons of 45 minutes a week), was seen as a limitation of the subject in terms of it being an arena for positive mental health development. The wide extent of PE stated in the competency goals and aims of PE, and the broad area of responsibility a teacher has in general, were also considered challenging, in the manner that teachers not felt able to do their jobs as it was expected of them. This challenges were also believed to partly be caused by the big number of students teachers dealt with on a daily basis, not feeling able to maintain each students' needs at all times – a way in which this is illustrated is that teachers not even managed to learn the names of all students. As a consequence of the framework of teaching and the great extent of the teachers' responsibilities, that generates a heavy workload, teachers got frustrated and sad for not reaching and giving attention to all students. Further consequences could be feelings of guilt, shortcoming and tiredness for the teachers. The teacher's thought that when they felt too tired to show enthusiasm and to put a lot of work into the planning of the lessons, the students did not experience the lessons being fun and adapted to their needs.

As teachers we are not only responsible for teaching subjects, we are supposed to spot it and act when students fail in subjects, when students fail socially, when students experience difficult home situations, when students have a huge absence. And of course we want to manage it all, because we care for the students, but we are not able to at all time. And the students have to pay the price. It is frustrating and demotivating for a teacher (PET5).

The teachers saw adolescence as a critical period of life in terms of facing challenges of positive mental health development, but it also seemed that they did not see themselves sufficiently competent to deal with students who experienced mental problems, and thought that they were not able to identify students at risk in time to help. Nevertheless, the teachers appeared eager to be involved in the students' health development as a whole. This could involve trying to get to know the students in order to arrange PE in ways that could be beneficial to the students' mental health. A limitation to this was that the teachers did not feel they had time to get to know all the students sufficiently well.

I know there are some students who are struggling with mental health problems. It is a shame that we as adults do not really know what it is all about. And those we might think is the strongest may actually be those who are struggling the most.[...] we do not know before it's almost too late (PET1).

For the students, youth challenges were much perceived to be about weight concerns and increasing preoccupation with physical appearance, especially among the girls in the focus group with students attending vocational courses, and with background in these issues they saw a change in their motivation for PE and physical activity in general compared to a younger age. The value of exercise and physical activity were more and more oriented towards how physical activity could affect their body-image and weight issues, and less fun-oriented.

There are plenty more who have changed attitudes towards PE as well, from when we were younger. When you reach the youth, then most people want to do more exercise, to get a nice body (FGA2).

Dissatisfaction with weight seemed to be influencing various aspects of the student's lives, which could be connected to different aspects related to mental health development. The observations gave an impression that students struggling with weight issues often pulled away from the social interactions in PE lessons, asking the teachers to be allowed to do alternative activities to the regular PE tuition, like taking a walk by themselves. Observations confirmed that the teachers often met such requests, and in these cases they seemed not to have other solutions that could include these students in the class. Consequence of this could be lowered motivation for participating in PE, and these students might less likely develop relationships to teachers and peers when not interacting with them in the lessons. These issues could be related to the teachers' feelings of shortcoming when it comes to embrace all students in big groups.

The teachers talked about how the multidisciplinary school system gives less priority to PE in favour of the more theoretical subjects, like Norwegian and Mathematics, placing the responsibility of physical activity on the voluntary sports organizations. They also felt that their education in PE was less valued than education in other subjects, PE being a subject that "anyone" could teach, regardless of formal competence. This was seen as a disclaimer, as conflicting with the curriculum of PE and damaging in terms of communicating the health

importance of physical activity to the students. The teachers were afraid that the school's indifferent attitude to PE would transfer to the students attitudes to PE, which in turn would turn PE into a second-rate subject and simply a disruption from the subjects that “really mattered”. PE not being prioritized economical or given extra teacher resources, the teachers thought could reduce the outcomes of PE due to health, including the mental aspects of it.

PE is by many considered as a subject that has no further goals than having fun and relaxing a bit between Geography and Maths. It's like “I am just a PE teachers”, but there is no such thing as “just a Math teacher” (PET4).

To have fun together in PE was seen by students and teachers as a foundation for being able to attain all other effects of physical activity. If PE was not experienced fun, both teachers and students could lose interest and in turn PE could not fulfil its other more long-term purposes either. PE was there and then highly valued for the element of fun in itself.

It's the most fun subject we have at school. That's like the meaning of PE, to have fun (FGB3).

To play is important. Isn't that what sports are? Fun and games, if you don't have fun, then people stops doing it. [...] besides, it's funnier to be a teacher too, when it's fun for them it's fun for me (PET1).

4.5 Plausible accounts: a grounded theory

The findings of this study picture many aspects that both separately and together strongly influence and challenge a person's mental health condition, both in a negative and a positive sense. In this section the findings presented above are further analysed, moving closer to giving an answer to the research question; “How do PE teachers work with young people, and what are the implications for the young people's mental health development?”, and put together the grounded theory of the study.

In conjunction with socialization, communication was an important aspect of the social processes in PE. Both teachers and students considered the teachers' openness to answer questions and their interest in the students as important for experiencing the communication as good. The teachers experienced that to establish good communication with students were difficult because of the number of students they work with on a daily basis. Concern around

the consequences this might have, were expressed by teachers and students. Communication of values and attitudes that could be perceived negative was anticipated to possibly have adverse outcomes due to student-to-student-communication and relationships. Teachers saw themselves as possible role models and influencers of the students' future physical activity habits, which could relate to the students' habituses and how they are developed. The choice of activities was important in this matter – both in terms of variation and level of difficulty. These choices could have both negative and positive outcomes due to the students' desire to keep on being physically active. For this purpose of PE, the teachers' appearance also had a certain degree of influence.

The findings on the social relationships occurring from PE, indicate that they were seen as close, and the teachers found it important to get to know the students at a personal level through their work with them. Students emphasised polite teacher behaviour and understanding around their different life situations. To treat students equally, fair and with respect were from both sides considered fundamental to establish functional relationships between students and teachers. On the other side, unfair treatment could generate negative feelings connected to the students' motivation for PE. The feedback from teachers were talked about from two angles; positive feedback as generating higher levels of effort, whilst negative feedback or lack of feedback decreased effort and created less situations where the positive feelings of mastery were present.

Findings that could relate to the concept of resilience indicated that PE might strengthen skills that can increase this as well as challenge it. This was to a big extent connected to mastery of PE tasks, or failure to master the tasks of the subject. Mastery of tasks in PE was in turn believed to be transferable and strengthening the students' ability to deal with pressure and master stressors of life outside school. The focus of the teacher's assessment of students in PE could influence in which situations and to which extent a student experienced feelings of mastery. Teacher expectations to students that made students feel out of control or coming to short could put students at risk for developing vulnerability when facing difficulties in their lives. The teachers wanted to facilitate for development of skills that could help the students to function in work life as adults. They saw limitations to their influence because the groups of students were big, and because not all students had parents that supported them or gave opportunities to take part in other social arena which could develop such skills outside school. Feedback was seen as a strong influencer related to the students' abilities to take on challenges and master difficult tasks.

Teachers saw their ways of working with young people as potentially both supportive of and negative due to the formation of identity in the young people. The students found that the teachers' feedback affected how they perceived themselves and their abilities. The teachers seemed to be aware of that their comments could affect students' development of identity – and found it frightening that one poorly considered comment could hurt a student deeply. To avoid such situations, and rather be perceived supportive, they emphasised getting to know the students to be able to adjust the ways of talking to them to their personalities. The experience of either success or failure in PE were also connected to identity formation, this cutting both ways; succeeding in PE could facilitate the formation of an achieved identity whilst failure could disturb this formation. Adolescence were by teachers recognized as a period of life that brought uncertainty around the students' senses of self, and wanted to help them gaining self-knowledge through helping the students finding “their place” in PE.

Development of personal competences and changes in self-perceptions could according to the teachers be potential effects of PE. They thought that students that were satisfied with their achievements and effort in PE could experience their self-esteem to increase. The students' perception of themselves in PE, the teachers thought that could give a general higher self-esteem. The teachers also thought that experiences of mastery, that PE could generate *if* the students got to perform activities they did well, could get the students to value themselves higher. Students thought that physical activity *could* affect their self-esteem and self-images in positive ways, but also that PE sometimes put them in humiliating situations where their weaknesses became visible to others, which in turn decreased self-esteem. They thought this could be avoided, if teachers did well in adapting the activities to their preconditions. To involve the students in the lessons, as role models for others, and let them promote their strong sides were by teachers considered important for students to feel valued, and in turn value themselves. Teachers' feedback to students was found to either increase or decrease self-esteem, depending on the feedback being respectively positive or negative.

Student behaviour in school was by teachers seen as reflective of how they were doing outside school, and in relation to their parents. The teachers emphasised mental health as an aspect of everyday life well-being. Positive development of various aspects of self-perception was seen as PE effects on mental health. The limitation of PE in that manner, were found to be the small extent of the subject, and the wide extent of PE cited in the competence goals, which the teacher felt they could not meet properly for all students. Consequences were teacher feeling frustration, and students not being recognized. Neither

did the teacher find themselves competent to identify or deal with students struggling with mental problems. If the teachers got to know the students better, they felt more able to avoid these consequences to a certain extent. Students, mainly females found weight issues and negative body-images to be challenges of adolescence. These issues caused changes in motivation for PE compared to in childhood. The PE teachers in the study felt that PE was a less prioritized subject, and their sport oriented education less valued than the education of teachers in other subjects. They feared that these attitudes could result in that students would consider PE *not* important. Both teachers and students found it crucial that PE was experienced fun and play-oriented, and valued for this purpose in itself, in order to make it possible for students to gain mental health related effects of PE.

4.5.1 Key mechanisms – social processes

This study has developed a grounded theory of how PE teachers influence the mental health development of young people. The theory has been developed using sensitizing concepts derived from the literature and applied in the analysis of the data generated, to describe the key social processes that illuminate mechanisms through which the teachers' work shapes the mental health development of young people. The use of concepts contributes to the study's validity, in that the conclusions may represent some reality outside the research itself; beyond the particular research setting (Green, 1999). This means that the grounded theory developed in this study may have some transferability to other similar settings, in that it can explain how significant others – in this case PE teachers – contribute to the development of mental health. The processes of socialisation, the social climate and the relationships between PE teachers and students form an important basis for the young people to gain and develop skills and personal characteristics which may in a longer-term perspective serve to protect, or to pose risk to, their mental health development, for instance through the building of resilience and self-esteem. The teacher role may either reinforce (serve as a support for students through having time, care and knowledge of the students' feelings and needs) or challenge (pose critical factors through the way of working with young people, for instance because of lack of time, or poor adaptation to students' needs) the students' development of resilience, self-perceptions, identity and so on. The closeness in relationships, the form of communication (including feedback), the understanding of students' lives, the choices of activities in PE and the framework of the teacher's practice given by the school system and legislation turned out to be important experiences and

backgrounds in this matter. All these things influence whether or not PE teachers are able to create the conditions that make the potential of PE to influence mental health development a reality, or not.

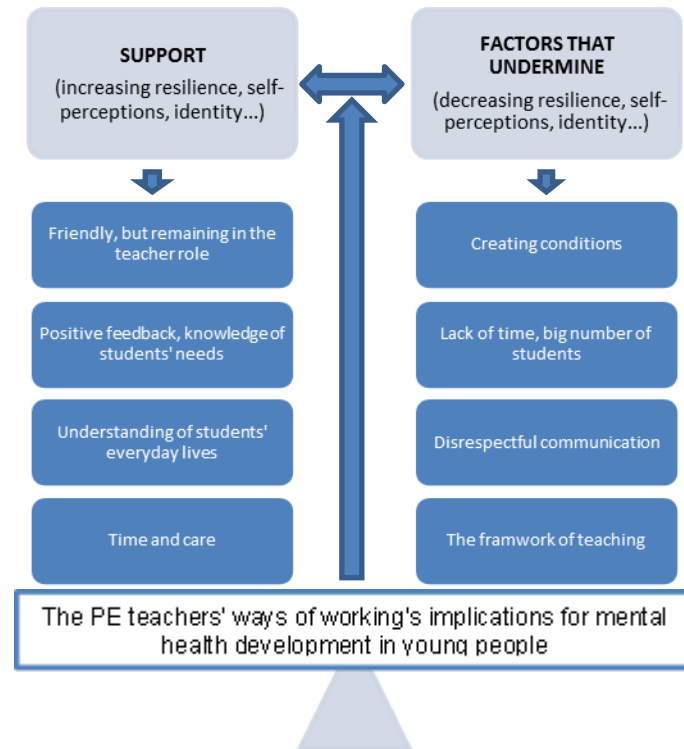


DIAGRAM 1: Key mechanisms in social processes.

5. Discussion

The main aim of this thesis was to explore how PE teachers work with young people and consider the implications for young people's mental health development. In order to do this, the social processes that take place within the PE lesson setting were focused on. The social processes are human interaction, specifically in the context of PE where various kinds of sporting skills, games and competences are taught formally, as well as the more informal interactions that take place in this setting. The following section presents a critical reflection of the methodological, and other, limitations of the study, before going on to discuss the findings in the wider context of knowledge relating to the subject, and to consider some implications for policy and practice.

5.1 Limitations of the study

All methods have strengths and weaknesses and this is also the case with the qualitative approaches and methods used in this study. Those that are most likely to have threatened the integrity of the study are discussed. These limitations were taken into considerations when arriving at the conclusions of the study.

5.1.1 Limitations of qualitative approaches and methods

This being a grounded theory study, it started with a general focus and an open-ended research question (Charmaz, 2009). However, the research question and objectives gradually became more refined, as it became clearer what it was most useful and relevant to focus on. It was intended that theory would be derived from the data. Using grounded theory, it is questioned whether the researcher can suspend his/her awareness of relevant theories or concepts until quite late in the process of analysis (Bryman, 2012). This relates to the validity of the study. In this study, the reading of relevant literature has been going on throughout the research process, but with a critical awareness so that, it was judged, it did not influence the deriving of grounded theory from the findings.

Some have argued that qualitative research is difficult to replicate because it is unstructured and emergent, and because the investigator is the main instrument of data generation (Bryman, 2012). Since this study was reliant on my ingenuity, and a product of my choices, it may be hard for others to replicate. For example, during the analysis phase of the study,

what struck me as significant in the data might seem less important to others. Input from the supervisor, cross referencing to the literature, awareness around being sufficiently detached, and the sensitizing concepts helped me to reflect on and question what was significant for the research question in the data generated. It can also be difficult for others to establish what I actually did, and how I arrived at my conclusions, if there was a lack of clarity about how the sample was drawn or how the analysis was conducted, for example. This kind of critique of the qualitative approach is called lack of transparency (Bryman, 2012). The same study conducted by another researcher may not generate exactly the same product. This issue is addressed here, and in Chapter 3 by providing a detailed description of what has been done, and why. Because this study was conducted within a certain setting, and with a small number of participants, the generalizability of the study also needs careful consideration in order to consider if the findings can be transferred to other settings (Bryman, 2012; Kvale & Brinkmann, 2010). The researcher needs to be sure not to generalize inappropriately from the findings, e.g. how well the data support the theoretical arguments that are generated; not whether the findings can be generalized in a wider sense, but how well the researcher generates theory out of the findings. This is called theoretical generalization (Bryman, 2012). The theoretical generalizability is also the basis on which suggestions of policy and practice can be made. The credibility in the findings and conclusion drawn from them depends on information about context (Green, 1999). To address this issue, e.g. transferability, a thick description (Chapter 3) of the culture in which the study took place provides others with a detailed context and background for making judgements about whether the findings are transferable to other settings (Bryman, 2012). Nevertheless, this study did not seek to draw a statistically representative sample, but rather sought to understand the phenomena and theorize from the detailed textual information. Nevertheless, the generalizability of this study does not derive from the sample's representativeness, rather from the concepts that were found to be relevant to other settings and other groups of young people interacting with adults in sports, or PE (Green, 1999).

The interviews and focus groups were carried out in Norwegian, and the transcriptions were translated into English by the researcher. All the coding was also done in English, so that the supervisor could read all the data, and be helpful in the analysis process and discuss the data. In the translation the meanings and the content of the statements could have changed, if the translation process had not been sufficiently careful, especially in relation to maintaining the core statements that the informants really wanted to put forward. To avoid this all parts of

transcriptions were directly translated, but wording and sentence structure was changed when necessary in order to be sure that the meaning of statements was not lost in the process. Nevertheless, in order to ensure that these problems were kept to a minimum, the researcher was highly aware of the issue, and extra care was taken during the analysis phase of the research and in the construction and presentation of the findings in Chapter 4. Thus an account has been communicated that represents the informants' points of view. The supervisor's input on the data presentation has been a strength to the reliability and validity of the study, confirming that the researcher's presentation of data represents what the data collection generated.

Qualitative research is often considered subjective, and that it relies too much on the researcher's values and views about what is significant and important (Thagaard, 2009). It might have been a limitation to the detachment of the study that the researcher practices as a PE teacher at the school of investigation. The issue of involvement and detachment, and other methodological concerns are further examined below.

5.1.2 Involvement and detachment

Qualitative research is based on an inductive view of the relationship between theory and empirical data. The epistemological position (the nature of knowledge and what is considered acceptable knowledge), is described as interpretivist. This means that the aim is to understand the social world through the interpretations of the participants in this world (Bryman, 2012). Elias (1956) uses the terms involvement and detachment, rather than the orthodox terms objectivity and subjectivity. Detachment refers to the investigator being less directly involved in the problems of the study, and that it is easier to develop theories on human relations if not studying societies to which they belong. Researchers cannot, however, be completely detached, because they are a part of the society they are studying. Involvement refers to the researcher's interpretation of the subject and tells something about the researcher, as well as about the subject that is studied. Involvement may impose a partial perspective on social life, however he also argued that involvement could be an advantage (Elias, 1956). Elias recognized that involvement is a precondition for interpreting the world (Rojek, 1986). In qualitative research it is recognized that the researcher and the participants of investigation are influencing each other to some degree (Thagaard 2009), and it is recognized that it is not feasible for a researcher to be totally objective and value-free in the

research (Bryman, 2012). Elias (1956) also argued that it was necessary to obtain an appropriate blend of involvement and detachment.

The validity of the findings depends on the researcher's ability to interpret the data in a theoretical way (Kvale & Brinkmann, 2010). The researcher's position within the field in which the research is conducted can be essential for the understanding of the field (Dalland, 2012). This research has been conducted within my own field of practice, my workplace where I am a PE teacher and a colleague. Personal relationships between me as a researcher and the people studied had been developed before the research was conducted. This demands reflection around how my position in the field could have influenced the participants and the data generated through the observation, interviews and focus groups, and reflection around how I contributed to the production of knowledge (Kvale & Brinkmann, 2010). I have had to be aware of my position, and to be critical in analysing the data, which means taking into consideration that the relationships with the participants might have affected my detachment, as well as my involvement (Dalland, 2012). In order to address this issue, I have, throughout the research process, focused on being sufficiently aware of my own presuppositions, values and former experiences within the field and to control the influences during the research process, and particularly during the analysis (Bryman, 2012). The hopes, aims and expectations that I brought with me to the field might also have influenced how, and what I saw – during the whole research process (Bryman, 2012). However, my knowledge of the school and my professional development as a PE teacher, might have given me some insights that someone else might not have had, if I was able to critically detach myself, not being too emotionally involved to produce valid accounts.

The ontological position, the study of reality and a theory of the nature of social entities in qualitative research is described as constructionist – social properties are considered outcomes of the interactions between individuals, and not phenomena separate from those involved (Bryman, 2012). In this study the interactions between PE teachers and students were focused upon and the potential outcomes of these interactions that were of interest in conjunction with this study were mental health or indicators and dimensions of mental health, as illustrated by the sensitizing concepts presented in Chapter 2. As a researcher, I will therefore present an interpretive account of the participants' accounts of their social reality, rather than one that can be regarded as definitive. The meaning of the social world is by degrees a social product, constructed in and through interaction (Bryman, 2012). This means that interactions have also been a part of the research process, which may have

influenced the presentation of the data material of this study. The interactions between PE teachers and their students are studied, but my interaction with the informants was also something that might have contributed to colour the outcomes of the study.

Overall, the limitations of the study are throughout the research process been issues treated with significant awareness, which has minimized the threat they have posed to the study's integrity.

5.2 The processes of socialisation and habitus formation in PE teaching – in relation to mental health development

The PE arena can be seen as one where processes of learning of, among other things, values, knowledge, skills and habits takes place (Green, 2010). Ommundsen (2000) argues that social processes within *physical activity* settings protect against the influence of factors that could put young people at risk of developing mental health related problems in the future. This study aimed to understand how PE is related to mental health development, and how PE teachers might generate processes that give rise to protective factors through their work with students.

Green (2010) points out that young people cannot avoid learning something, somewhere, with somebody – which relates to the processes through which people are taught and internalize what is transmitted in the group. Communication was important, and was an important mediator in the relationship between physical activity and mental health development. However, it was a mediator that could have both positive and negative consequences in the manner of mental health development. This study found that experiences involving positive teacher-student communication were more likely to lead to a positive development of mental health, whilst correspondingly negative communication in the PE setting likely could lead to poorer mental health development. The different consequences are likely to relate to the whole process of PE, which is dynamic and entails so many interactions, so many things that are said and done (communicated) between PE teachers and students. Through the social atmosphere that emerges, and the norms and values that are communicated, it is likely that students are equipped with expectations to the teachers. Some teachers seem to create a positive social climate, where students, for example, does not experience failure to be humiliating, while other teachers through these

dynamics, their communication, seem to produce an atmosphere where students feel worried and ‘on edge’.

Communication with the teachers that the students perceived was good, connected them to the teachers, in that the students felt safe to speak their mind and felt confident that their questions were being taken seriously. The communication seemed to be central in the creation of a kind of a social climate in which the students felt a sense of belonging and safety. Carter, McGee, Taylor and Williams (2007) cite young people’s connectedness to school life as influencing the development of health behaviours. Therefore, if PE teachers succeed in communicating with students in a way they understand, it is likely to make them feel the teachers’ interest in them; it is also likely that they feel connected to the teachers through such communication. These types of social interactions are likely to increase the young people’s motivation for learning. In turn, this could affect the kind of health behaviour that develops in the young people, communication perceived as positive, moving these mental health developments in a positive direction. This might explain how the PE teachers’ in carrying out their role can influence their students’ mental health development. However, students did not always feel that the teachers had a respectful way of communicating with them, which *negatively* affected their motivation to learn and participate. In other words, the communication from teachers in these cases was less likely to influence the students positively in the learning processes of PE, leading to students with poor connections to the PE teachers. This could support Hansen, Larson and Dworkin’s findings (2003), who, after studying the sporting arena as an arena of socialisation, argued that there was a need for further knowledge on *how* leaders influenced experiences relating to positive developmental change. In addition to teachers’ comments, students also found the teachers’ behavior, at times, disrespectful, which they thought could lead to students treating each other in less respectful ways. Green (2010) points out that learning can happen *unintentionally*. The findings from this study suggest that this might be the case in situations where students find the teachers’ communication disrespectful. Students may learn from them, adopting the same ways of talking to each other. Since PE teachers can be considered as people who have a significant influence on the thoughts and practices of young people (Green, 2010), in other words are ‘significant others’ in the process of secondary socialization, this could involve a form of *unintentional* learning that could associate the PE arena and its social interactions to mediating risk factors for the student’s mental health development. This could be in terms of young people learning to speak to each other disrespectfully, or in terms of the teachers’

having disrespectful ways of communicating – both could contribute to creating a social climate that is not conducive to good mental health development, undermining, for example, students' confidence and self-esteem. Thus, the students learn and internalize not only the teachers' positive values and skills, but also those of a more negative nature through the secondary socialization taking place in PE.

Nevertheless, among PE teachers it was generally argued that the long-term benefits of an active life style are important, and they wanted to influence the students' future choices regarding physical activity, a finding that is supported by other empirical studies (Green, 2010). This can be related to the habitus concept; students' predispositions to choose a physically active life-style later on in life. The habituses of young people are likely to be expressed in their choices of lifestyle and physical activity habits (Wilken, 2008). The findings of this study indicate that teachers felt that to have an immediate impact on students' health was difficult, but that they possibly could be contributors to positive habit formation in the longer term. Still, the teachers, to some extent, saw themselves as people who, through their way of working with young people, *had* the power to influence their students' health behavior in a life course perspective. Related to the aims of this study, teachers influencing students to choose a physically active lifestyle in turn protects their mental health development, if they manage to organize PE to make life long participation more likely, such that it is perceived as fun, varied and develops students with feelings of mastery. This aim is also part of the purpose of the subject PE in Norway, according to the national curriculum (Utdanningsdirektoratet, 2012). It is noteworthy that the aims of PE that were emphasized by the teachers tended to be similar to those of the curriculum, and the question of whether teachers cite this as important because of the published curriculum, or out of their own opinions, may be raised on the basis of observations where this focus was less visible than what was said in interviews. The longer-term perspective of PE – to establish habits of being physically active – is part of the competence goals of PE. It might seem natural for the teachers to highlight this as important, whether they are or are not genuinely attempting to pursue such results of PE. Related to this study, a predisposition for being physically active, that teachers might influence, may in turn influence positive mental health in a life course perspective. This seems worthy of further investigation.

Nevertheless, Green (2010) discusses how *best* to influence the young people's predispositions toward different habits. In order to create lifelong interest for physical activity among students, teachers emphasized low threshold activities which they thought

easily could generate feelings of mastery among the students, which in turn could increase the belief a person has regarding being able to avoid health compromising situations in life (Martinsen, 2004). Students also argued that it was important to vary and adapt the levels of difficulty so that all students could show their competence, even if they did not connect this to longer-term consequences but rather to their present physical activity habits. The experiences of teachers suggested low threshold activities, fun and variation as fundamental for PE to influence future habits to embrace physical activity, which are likely to be positive for a mental health development because it could relate to for example development of self-esteem, confidence and mastery (Huang, 2010; Smith, Green & Thurston, 2009). Again, this view was more clearly posed in teachers' expressed views than visible in their practice – the teaching of students. This could indicate that the formal aims of PE are unrealistic to reach in the regular PE tuition, and that these aims are rather than reality-oriented and descriptive of PE practice, merely normative. The potential implication for habit generation related to mental health development in PE then seems more or less totally dependent on the teachers' professional practice, in other words how they work with the students, the formulation of the subject's intentions having less to say for the consequences. With this in mind, it is likely that the teacher role in itself (through the teachers' ways of working, interact with and communicate with students) is a critical factor for the students regarding their experiences of PE, independent of what frameworks the teachers relate their practice to, and what intentions they have with what they teach in PE. In other words – what kind of mental predispositions students might gain, or the influence of habitus that might happen in PE, depends on teacher approach rather than the subject and its content itself.

The relevance of teacher practice which could relate to habitus are further elaborated by the informants, students emphasizing a well-liked teacher as a role model which could be worthy of imitation. This supports Woolfolk (2007) who suggests that through observing others, young people learn how to perform certain behaviors – especially when the role model is *held in high regard* by the students. This reflects in the teachers' and students' descriptions of a good role model; encouraging, enthusiastic and demonstrating an enjoyment of PE. Such a role model is likely to orient the students' predispositions towards making positive choices regarding their health and physical activity habits (Green, 2010). This, and the consequences of a teacher not acting as a good role model, will be further discussed below, in relation to the teacher-student relationships.

5.3 The role of social relations and social climate – teacher-student relationships

This study has investigated a number of specific social processes that together shape the social climate that is created by the teachers in the setting of PE, which objective 1 set out to explore. The discussion above suggests communication to be a significant aspect of this climate. The social processes, or the human interactions, that develop between PE teachers and students are mediated by the activities the teachers construct, the verbal and non-verbal communication (through feedback they give and if they are acting as role models), and creates a particular form of social climate that is important to explore in relation to the main research question. The findings reveal how teachers' ways of working with students can have a variety of consequences, both which support but also might undermine the mental health development of young people. This again indicates that how teachers' work has implications for how students experience PE, and what might follow in terms of their mental health development.

Johnson, Eva, Johnson and Walker (2011) argue that teachers could be in a unique position to recognize students at risk for developing mental disorders and to provide support for them, and that teachers must be aware when they see changes in students' behaviour. However, whether or not teachers in general, and PE teachers in particular have the competence to do this, was questioned by PE teachers in this study. Nevertheless, Berg (2007) found that positive relationships developed with people outside of close family might in themselves be protective of young people's mental health. This is to some extent reflected in the findings of this study, which revealed that the relationships which develop between students and PE teachers, influence how the students experience PE. This study found that social interactions influence how students experience the subject and, still, the relationships that developed through PE were considered different from those developed through other subjects – but, “for better or worse”. Anyway, this study does not support Johnson, Eva Johnson and Walker's view entirely (2011) – even if they might be in a good position to recognize students at risk of developing mental disorders, the teachers in this study did not find themselves competent to do this.

Carter, McGee, Taylor and Williams' (2007) study highlighted that the relationships between teachers in general, and students were connected to higher degrees of participation and success, claiming that students who perceive teachers to be supportive, kind, friendly

and caring, could serve as a kind of social belonging at school that protected a young person's health. The students in this study found it positive that the teachers got to know them in a personal and emotional manner, for example, which meant that they could, without inhibitions due to their feelings and shyness, participate in PE. The closeness that enabled them to 'open up' and reveal personal information to their teachers was considered necessary for the teachers' understanding of them and for the teachers to be able to adapt the tuition to their needs. As such, this knowledge can also be connected to Berg's (2007) claims that significant adults who show kindness and support helps young people to feel valued. Being valued by others, is a core element in positive development of, for example, identity, confidence and self-esteem, which helps, in turn, to develop resilience, and, in turn, these relationships can be protective of students' mental health.

On the other hand, students had experienced PE teachers talking about students in ways that to them felt offensive. Close relationships and a friendly tone between teachers and students, may lead to teachers that put themselves in situations where they, for example, entrust students information not meant for them. This is a "grey area" of a teacher's practice, at times interacting as friends rather than as a teacher role, or adult role – a role that is considered important for young people in relation to feeling valued and having good learning outcomes (Ogden, 2010). This study suggests a greater need for critical reflection by teachers, so that actions are *consciously* taken when establishing relations with students, to avoid putting themselves in difficult situations, or being perceived *neither* as a teacher nor a friend. Thus, closeness can be supportive of mental health development; it also has the potential to create an ambiguity which may undermine the quality of relationships that could support mental health development. Awareness around this issue seemed important.

The consequences of students experiencing *difficult* relationships with their PE teacher could be seen in relation to Helland and Mathiesen's (2009) findings that suggest mental problems to be influenced by *lack of support* from teachers. Lack of support in the eyes of students in this study involved essentially unequal treatment or teachers showing favouritism to other students. Olsen and Traavik (2010) found that when young people experience recognition from significant adults, such as PE teachers in this study, they will learn how to treat other people. Related to this, students in this study who felt unequally treated, or less prioritized by the teacher, could have fewer opportunities to develop skills in relation to how to treat and interact with others in social circumstances. This is reflected in student statements in this

study – implying that if the teachers are rude, it is ok for students to have similar attitudes to each other.

In this study both students and teachers identified teachers' interest in, and understanding of, the students' everyday lives as a foundation for good relationships. It seemed that the students valued being seen as the unique persons they are, instead of being “just students”, which in turn also helped teachers to have something to talk about with the students. When the teachers showed a genuine interest in the students, the students viewed them as caring and supportive. In this regard, the study of Helland and Mathiesen (2009) that suggested teacher support to be positive for mental health development becomes relevant.

Further, this study supports Coalter (2011) who argues that relationships and forms of leadership within activity settings are important to young people. This study suggests a particular form of leadership to be important and likely to influence the mental health development of students; the teacher should be friendly, but not a friend, leading but not dominating, and treating students equally but as individuals. That teachers participated in activities with the students, as *equals*, was also a form of leadership that the students in this study found appropriate and positive. Related to forms of leadership, both students and teachers emphasized a teacher approach that included treating all students equally and included all students regardless of skills. These findings again support Carter, McGee, Taylor and Williams' (2007) study which found that a caring and fair school environment was more likely to report less risk behaviours than others. On the other hand, findings from other studies also highlights that equal treatment, which requires *unequal* treatment by taking different needs into consideration, of all students is not always the reality of school life. That teachers often interact with more than 100 students on a daily basis (Johnson, Eva, Johnson & Walker, 2011), may partly explain this matter.

5.4 Development of resilience

The resilience concept indicates the possession of a number of skills that can help people to cope with life challenges (Zolkoski & Bullock, 2012). This study supports that such skills could be developed through the interactions that develop within, and the activities that take place in, PE.

The key question is if PE helps to develop resilience, and if so, in what ways. Even if resilience is more about a general competence to face a variety of challenges rather than about mastery of specific sport skills in itself, such experiences were in this study seen in relation to resilience, because the feelings of confidence and self-esteem mastery can generate might serve as protective factors which could characterize the students at other times and situations (Schoon & Bynner, 2010).

Findings from this study suggest that both teachers and students think that it is important that the tasks students are put up against are not too difficult, and that difficult tasks could undermine the belief in mastery. More specifically, repeatedly facing tasks that are too difficult were found to undermine the students' belief in their own abilities to master challenges in other situations outside school, e.g. to give resilience in life in general. This could indicate that the resilience of the students, to actually handle challenges, both by themselves and by the teachers, is questioned. Seen from another perspective, presenting students with *easy* tasks might also decrease their belief in their abilities to master, even though teachers think this could be encouraging. This suggests that graded activities that are built up over time are important for the students' resilience. Nevertheless, such a starting point for PE tuition might decrease the potential of PE for students to acquire skills that contribute to good outcomes in stressful situations outside school (Hjemdal, Friborg, Stiles, Martinussen & Rosenvinge, 2006).

Green (2010) and Roberts (2009) argue that skills acquired through physical activity do not necessarily transfers to other areas of life. This could also relate to skills acquired through physical activity in PE. This study did not either find that the resources students potentially develop related to PE challenges *are* comprehensive to other life situations. Still, students and teachers did find it likely for this to happen, because of the confidence mastery of specific skills give the students, in general. This supports Martinsen (2004) who also found it possible that experiences of mastery are transferred to other areas of life. If so, teachers giving students tasks they master, easy or difficult, could be protective of mental health.

Further, the development of mastery in PE could be entirely dependent on how the teachers work, rather than on the student's resources. If so, teacher are likely to play a key role in helping students overcome challenges through the learning strategies they construct. Then, students' inabilities to overcome challenges are likely to be, at least in part, a reflection of teachers' abilities, not just students' capabilities and motivation. Not being able to overcome

challenges that are posed if a teacher is *not* facilitating mastery might give signals of students actually lacking the abilities to achieve good outcomes in situations that are *not* facilitated and organized. After all, that normally is the case in real life. Here, the teacher is likely to be the undermining factor in facilitating the development of, for example, self-esteem, and in helping to build resilience through the medium of PE. Even though Zolkoski and Bullock (2012) emphasize the school environment in promoting resilience, whether or not school practices make facing significant adversity in *uncontrolled* environments outside school difficult, is debatable. If these situations are perceived as new and frightening compared to the familiarity of the school environment, where most challenges are adapted to the student's abilities, then this may present threats to which young people cannot respond adequately. In other words, it is likely that PE contributes to the development of resilience through helping build confidence, self-esteem, mastery, and so on. In that case, it seems likely that this also to some extent is transferable to other situations outside school.

Either way, all above relates to Mæland (2010) who sees the school environment as both a risk factor and a resource for future health because those students who struggle are less likely to be prepared for the challenges of adult life, and those who succeed bring skills, confidence and self-esteem into adult life. Still, struggling *and* achieving could also likely have positive outcomes – struggling does not necessarily have an outcome that is failure.

Both teachers and students emphasised an assessment focus that supports effort instead of, or at least in addition to, skills. Such a focus in the assessment process could connect the feelings of mastery to hard work instead of successful performance of skills. If this focus was consistent in PE, the level of difficulty would not matter to such a degree – if the effort is what counts, both success and failure would potentially either enhance or not affect the students' resilience (Mæland, 2010).

Giving positive feedback to students was emphasised by teachers as a way of helping students achieve their potential. Similarly, students found positive comments from teachers to encourage them to do their best. Teachers providing positive feedback to students are, in other words, teachers who recognize the students' capabilities, and invest of his or her time in supporting the student. Schoon and Bynner (2010) suggest that these kinds of teachers also act as role models, and Zolkoski and Bullock (2012) link positive teacher influences to resilience in adolescence. Still, it is unclear if and how feedback in a certain situation affects

students' resilience in a longer-term perspective, and whether it affects the students' resilience in conjunction with PE or physical activity only, or more on a general basis.

The school, and the teachers ways of working with students in PE could therefore influence students' resilience. Resilience is a conceptual umbrella for protective factors that could modify the impact of adversity (Hjemdal, Friborg, Stiles, Martinussen & Rosenvinge, 2006), under which, among others, the concepts identity and self-perception are fitting. These factors may also be strengthened by physical activity in itself (Espenes & Smedslund, 2001), then resilience development in PE on the other hand could be less related to the teachers' ways of working with the students. This study supports the view that teachers' ways of working are likely to influence resilience in the students stronger than the physical activity in itself.

5.4.1 Identity formation

The development of identity is found to, among other places, take place in the school domain (De Goede, Spruijt, Iedema & Meus, 1999).

Participation in physical activity could have both positive and negative effects on the identity development process of young people (Hansen, Larson & Dworkin, 2003; Ommundsen, 2000). The findings in this study supports that this is a dual-sided issue, PE having both positive and negative effects on the identity formation of young people. The findings suggest that teachers clearly play a part in this matter, their feedback appearing to be especially relevant.

How important the teacher role is perceived to be, by students, seemed to be connected to their identities. Ommundsen (2000) argues that for young people who do not master the physical skills of PE, participation will rather weaken than strengthen their self-perception, which could be influencing identity formation through giving a confirmation of the students' identities. Findings from this study support this, and the teachers' feedback seemed to be a critical factor in this regard. Absence of mastery in PE was in this study closely linked to body-image, and teacher comments were often perceived negatively by such students, reinforcing their negative ways of viewing themselves – even in cases where feedback was well-intentioned. On the other hand, for students performing well in PE, the feedback from the teacher seemed to conversely confirm their strengths and making the foundations of their

identities stronger. This supports Ommundsen (2000), who suggests that physical and motoric mastery have the potential to confirm a young person's identity.

Students who lack sport skills in some situations felt excluded from the social group in PE. The identities of young people are argued to strongly influence and be circumscribed by groups that they are part of (Green, 2010). This could mean that students who are not good at PE do not connect their identity to physical activity; being physically active is not what identifies them in their own minds, and also their social identity does not relate to a sports domain. In turn, their health resources could be weakened; because of the vulnerability young people's identities might have in adolescence it is likely that mental health could be challenged when the ability to cope with adversity, like the feeling of exclusion from a group, might not be sufficiently developed at this time (Berg, 2007).

Teachers pointed out that it is hard knowing what kind of comments might hurt a student. In relation to Berg (2007) this could indicate that teachers have difficulty understanding the situations of the students, which is considered important in relation to mental health challenges that might occur in adolescence, further suggesting teachers to might be critical factors in their students' mental health development. The teachers were well aware of themselves as potential "underminers" of students' identity. Their position of power within the relationships between teachers and students was considered the main factor which meant that their feedback could pose threats towards positive identity formation – this could mean that who holds the position of most power in a relationship could strongly influence the outcome of the relationship – in this case, PE teachers are likely to influence students' mental health through their feedback, because of the positions teacher possess.

The visibility of success or failure that characterizes the PE subject, and makes it different from other subjects, was also found to shape the identities of the students. Success in front of others brings positive attention which both findings from this study, and De Goede, Spruijt, Iedema and Meeus (1999), suggests that influence mental health – the more a person feels achievement, the better their mental health is likely to be. Conversely, visible failure is also something that teachers thought shaped students' identity – such stressors may disturb the formation of identity. Teachers have the possibility to regulate the influences of both successes and failures through their ways of organizing the subject, for example being the ones that decide the type and form of activity. Therefore, the teacher's role also in this matter influences mental health development, through facilitating either strength or vulnerability in

the students' way of gaining self-knowledge. This was also the case in Hansen, Larson and Dworkin's study (2003), in which they argue that youth activities makes young people develop a stronger sense of who they are. Their study addressed youth activities, but the findings might be relevant also in the PE setting, that also engages young people in physical activities run by an adult.

The presumption that the school context potentially plays a significant role in the development of identity in young people is supported through this study; these findings suggest that the social processes through which PE is delivered by teachers during lessons has a significant influence – both in terms of potentially being supportive of, and/or posing risks towards, the students' mental health development.

5.4.2 Self-perception and personal competences in PE

The findings of this study suggest that those students who experience mastery in PE are more likely to have positive perceptions of self, whilst conversely not being so good at PE may well generate feelings of humiliation, as well as undermine self-esteem and self-image.

This study suggests various aspects of self-perception and different social skills in students to be affected both by the form of PE and physical activity, and less related to the teacher as a person and role model – the teacher seemed to play more of an implied role, influencing students' perception of self through the organization of the subject and the decision making.

In connection with self-esteem the teachers thought the choice and difficulty of PE tasks had an impact; manageable tasks were more likely, they thought, to lead to the development of positive self-esteem, while those that were too difficult challenged self-esteem. Biddle and Asare (2011), argue that the self-esteem of a person reflects the degree to which the person values him or herself – high self-esteem indicates positive mental health. Fox (1999) found that young people perceiving themselves capable in physical activity forms a basis of positive self-esteem. Findings of this study to some extent support this, since the teachers' choices of activities were perceived to have the potential to both increase and decrease self-esteem in the students, teachers might have an impact on students' wellbeing and mental health development merely through how they plan and implement PE, thus here *indirectly* – independent of the social interactions with students. In this case, the findings of this study differ from Kirkcaldy, Shepard and Siefen (2002) and Lubans, Plotkinoff and Lubans (2011), who indicate that the physical activity separately is *not* the key ingredient

contributing to positive perceptions of self rather than the social interactions within such settings impact on self-esteem.

On the other side, and more in accordance with Kirkcaldy, Shepard and Siefen (2002), the impact of PE on self-perception on the other hand seems closely attached to the relationships between teachers and students and each teacher's way to interact with the students. Olsen and Traavik (2010) also found interactions with others to strongly influence self-perception – teachers potentially having a great significance in this matter. Findings in this study cite teachers' feedback as relevant to this influence – to be seen in situations of mastery is important for students, and important for a high self-perception. For teachers to be able to organize PE activities that generate feelings of mastery in students, it seems necessary that teachers understand the emotions of students – getting to know them in a personal manner. This clearly demands not only more personal interaction but also interaction of a certain kind. Teachers then might more directly, not so much dependent on the organization of the subject, have the opportunity to influence the self-esteem of their students, which in turn could affect their mental health development in positive directions. A challenge to this is, again, the number of students teachers interact with in their PE lessons.

Both how PE is organized and what kind of activities are offered, as well as teachers' communication and interaction with the students and the understanding of students emotions in PE, have implications for young peoples' perceptions of themselves and their mental health development in general. Nevertheless, it cannot in this study be concluded that the changes in students' self-perceptions that could happen in adolescence, could not be connected to pubertal changes or personal factors rather than to PE experiences, as suggested by Haugen, Säfvenbom and Ommundsen (2011). It is acknowledge that young people's lives extend also beyond the school. However, the focus of this study has been on attempting to understand how a specific aspect of school life – the experience of PE and the social processes that takes place within this subject – might influence mental health development through a variety of processes.

5.5 Association between PE and mental health – with emphasis on the role of the teachers

Physical activity, which is a big part of PE, has received increasing emphasis in relation to being a host of wider benefits (Bailey, 2005), for example, through strengthening the factors

discussed above, which also can be seen as aspects of mental health. Previous research has shown that PE could, through giving young people positive experiences, enhance mental health by strengthening confidence, self-esteem, resilience and social belonging (Bakirtzoglou & Ioannou, 2012; Ommundsen, 2000; Biddle & Asare, 2011). Studies of coaching behaviour (which may have results transferable to the teacher's role) argue that coaches influence children's enjoyment of sports and play a central role in development of sport attitudes (Jowett & Cramer, 2010; Walters, Payne, Schluter & Thomson, 2012). Overall, the findings of this study also suggest that the PE teacher, as the facilitator of PE and the adult connected to students, is the critical factor, and has differing implications for the mental health development in young people. These implications are different in strength and will be further discussed.

If PE generated feelings of mastery, it was in the minds of teachers and young people, likely to have positive implications for their mental health development through mediating different aspects of self-perception. However, the impact seemed to be limited, at least in part, by the duration of PE to only 90 minutes a week. Despite this, the formal aims of PE involve a broad area in which the PE tuition should maintain students' personal development. This includes promoting health and well-being, protecting social belonging, contributing to character formation that enable students to protect their own lives, giving the students mastery and joy, developing self-esteem and positive body images and the courage to push own limits, and so on (Utdanningsdirektoratet, 2012; Opplæringslova, 1999-2000). The significant psychological consequences that PE is supposed to have for students lead to frustration and feelings of not doing the job satisfactorily among teachers in this study. The heavy workload and feelings of inadequacy might even have implications for the mental health of teachers themselves in the longer-term. This, and the framework of teaching in general, may have a negative implication for students' motivation, in terms of students meeting tired teachers, unable to mobilize energy to show their enthusiasm for PE. Consequently, students may themselves experience lowered motivation for PE and a poorer starting point for enjoying physical activity in a life course perspective, which is associated with improved mental health (Biddle & Asare, 2011).

Another reason why the formal competence goals of PE are hard for teachers to fulfil is the large number of students. As previously discussed, teachers getting to know the students have been cited as important for students to experience mastery and safety in PE. It was also generally agreed that PE teachers get to know the students better and in a different, more

complex way than in other subjects. Getting to know each other requires time, conversations and interactions – which teachers did not think they had with all students. Consequences could turn out to be negative both for students' and teachers' mental health. Also students that already are at-risk for developing mental problems, which in the worst case could be partly related to them being among the students not being seen in PE, are more difficult for teachers to identify in large classes. Teachers did not feel educated to spot students that struggle – they felt incompetent to deal with these students. The teachers' still have responsibility to protect the mental health of students, and in relation to this, it could be questioned whether the content of PE teacher education gives teachers the competency to recognize students at risk, and the tools to deal with such students. The implications this might have for mental health development are likely to be negative – students at the threshold of a negative mental health development not being detected early, and teachers feeling guilty for not seeing it before when the 'red flags' gets noticeable for them. These issues may have been possible to avoid, to a certain extent, if the PE teachers' felt their competence were more matching with the formal responsibilities of a PE teacher.

Students confirmed that adolescence was a period concerned with challenges to their mental health – weight issues and poor body-image were prominent in this matter and motivation for PE changed from being fun-oriented to be more about losing weight and, in their eyes, improved physical appearance. Still, the students concerned with their weight were more likely to distance themselves from PE, avoiding participating in the social group of students and teacher. It might be that their poor body-image and concern around weight inhibits them to participate in PE, which in turn hinders them from gaining protective mechanisms towards psychological distress (Bremnes, Martinussen, Laholt, Bania & Kvernmo, 2011). This also indicates that teachers are not always able to reach students who could benefit from PE both socially, emotionally, physically and mentally. Even if these students were not strongly represented in this study, teachers and students gave an impression that this is a genuine concern among the students. This relates to Witt and Crompton (1997), who describe interested and caring adults and sense of acceptance and belonging as protective factors which enable youth that have some kind of disaffection to avoid the negative consequences of risk environments; students not being part of the social group does not experience the belonging to others through PE.

Another issue posed, was the value of the subject PE, and the value of the PE teachers' education relative to other teachers and the school system in general. A consistently

indifferent attitude to PE in the school, as teachers fear is the case, could give PE a second-rate position, which will not make it easy to provide extra teaching or economic resources to strengthen the subject in terms of being more able to reach the aims of the subject. One of the reasons given as to why other teachers find PE to be less important than other subjects seems to be that there is a belief that it has no further meaning other than having fun. Nevertheless, exactly this aspect of PE is highly valued by both teachers and students – to have fun together is something they find important for their social and emotional well-being at school, as well as possibly having implications for their future participation and mental robustness. A more common understanding of the value of having fun, in relation to mental health development, may require a change in attitudes of other teachers, so that PE teachers could experience recognition of their practice and their teaching. In turn, PE could potentially become more beneficial to the students' mental health development; through that they could meet teachers that more clearly would be able to show enthusiasm and communicate the importance and value of PE.

5.6 Conclusion to discussion

This study has identified various ways in which PE teachers work in their roles as teachers, which might have implications for the mental health development of young people. The discussion has shown different social processes that are relevant when explaining how and what PE teachers can do to build mental health, but also, at times perhaps, undermine it.

The curriculum and formal aims of PE seemed to affect how teachers work, which through various factors in turn could influence this, with various strengths and in different ways. Although the curriculum defines what should be taught, the PE teacher has discretion in terms of how they interpret their role and how they organize and implement the curriculum, being responsible for choosing activities and teaching methods. This seemed to affect what kind of, or whether they were experienced to be at all, good role models for students.

The influence of teachers on young people's experience of PE were found to be dependent on the social climate teachers facilitate, what kind of activities they construct, and how difficult these are. Most prominent, it has been found that the PE subject and the PE teachers do have a potential to develop students' mental health in a positive way through getting to know students on a personal level and provide them with positive feedback in an inclusive social climate characterized by variation and fun. To a certain extent it seems likely that they

do, for some people, in some contexts and some of the time; PE contexts are dynamic situations that are not always possible to carry out as planned and intended. Furthermore, the dynamics change since they are developed through human processes. PE teachers, like others are not perfect in what they do at all times. Still, both the content of PE in itself, and the student-teacher interactions were likely to influence students in relation to resilience, identity, personal competences and self-perception. These factors could shape the students' habituses if these aspects of resilience become a part of the person's identity and personality – who they are. In that case, it seems likely that this is also transferable to other situations. Hence, the teachers' ways of organizing the subject and their choices of activities are likely to be critical factors that could undermine or decrease these aspects of a person's mental health – which could have the same implications for a person's habitus, identity and its transferability to other situations. Thus, the reality is quite far away from fulfilling the potential PE is often expected to have, and the influences were considered to be both for better and worse. The daily challenges that teachers face, which were found difficult and exhausting by teachers, are likely to limit the influence of the subject in relation to mental health development – to the greatest extent for those students in need of support and of building protective factors towards their mental health. These students also seemed to feel that they, at times, were treated unequally and disrespectful. The discussion also illustrates that in order to treat students equally, and give each student the designated curriculum, they need to be treated differently through ways of interaction and communication in relation to their personal needs. Some students felt less prioritized by teachers, and students found that students lacking sport skills or having physical challenges that made it difficult for them to participate in PE were to some extent excluded from the social group. In this way, PE could, unintended, be part of generating inferiority complexes and social exclusion in respect to some students. The teachers' working conditions and lack of time for each student caused by large student groups is likely to be exploratory and critical factors in this regard. Anyway, equal and respectful treatment is more likely to have something to do with the informal social processes that takes place in PE (like the ways of communicating, giving feedback and show understanding), rather than initially be connected to the framework to which the teacher must adhere (such as the comprehensive responsibility given by the subject's aims, and the curriculum). On the other hand, it might also *be* reasonable to assume that the expectations towards PE, and PE teachers, to provide students with a significant positive mental health outcome in some cases is unrealistic, related to how the subject is organized in Norwegian schools at present time; short duration each week, large student groups left for

one teacher to organize activities. The teachers' and students' emphasis on teachers who get to know students, take their personal needs into account, show understanding of the students' lives outside school, and other time consuming things requiring social interactions at a personal level, seems to be a mismatch with the framework of teaching as it is described by teachers. Still, these interactions, and the teacher's appearance, in terms of to which extent the teacher showed commitment and enthusiasm, seemed to have implications for how students experienced PE – and in turn, for the students' dividends of PE that could influence mental health development.

After discussing the findings there are many things to say about the social processes in PE and PE teachers' potential regarding the mental health development of young people. All social processes and interactions between PE teachers and students are likely to influence this – but whether the influence has implications that are positive or negative are likely to depend on personal experiences and personal characteristics, both of teachers and students. This raises the question of what kind of PE teachers would be more influential in relation to young people's mental health development. This is outside the exact focus area of this study, but in relation to the PE teacher's role and work with young people, the content of PE teacher education is still relevant and worthy of further investigation to uncover how the education forms teachers' ways of working. Also the policy documents, the curriculum, the formal aims of PE and the assessment criteria as they are posed today, seem to have implications for the framework and context of the PE subject and teachers' work, and have in this study stood out as important for the PE subject's potential to influence mental health development. Still, mental health development is also shaped from a young age by the family; interactions between parents and children in the primary socialization. School is only one facet of a young person's life, which makes it difficult to know to which extent PE could influence. This also makes it important to be realistic about what might be achieved through PE, but to look for opportunities to utilize the PE tuition the best possible way in relation to mental health development. The conclusions of this study suggest measures in relation to this.

6. Conclusions

The aim of this study was to understand the implications young people's experiences of PE might have for their mental health development. In order to gain insight into this, objectives that sought to explore and understand how PE teachers work with young people, what impact PE experiences had on young people, and the potential connection between PE and mental health development were used as underlying guidelines. In the discussion, processes, which thus appeared to be both supportive and/or unhelpful, about the teacher's role in relation to mental health development, were identified. Here, further conclusions are drawn in relation to the objectives and main research question. This study has contributed to the stock of knowledge on the implications of significant adults' roles for young people's mental health development in physical education settings, through providing insight into *how* PE teachers work with young people in lessons, and how the students experience PE.

Different domains of mental health, such as resilience and self-perception seemed to either benefit from, or be undermined through, the social processes that took place within PE. In other words, the teachers generated several both supportive and undermining roles through their ways of interacting with students, which to varying degrees were likely to influence various dimensions related to mental health development. PE teachers who is likely to have *positive* implications for the students' mental health development, based on the findings of this study, were those who managed to play multiple roles: being a care provider, a good role model, a good facilitator, friendly but not a friend, fair, respectful and understanding, involved in activities, and an enthusiastic person that gave positive feedback and took interest in the students' lives. For a teacher to be this person, both the teacher's personal capabilities and professional competences, and the working conditions of the teacher were likely to be influential. The study also shed light on how the organization of PE and the curriculum, that neither teachers nor students are likely to have the opportunity to influence, limited their work. Taken together, this study highlights the significance of both personal characteristics and contextual factors in understanding how teachers influence the mental health development of young people within the PE setting. This means that it needs to be *facilitated* (through the external factors like the subject's aims and assessment criteria) for the teachers' to be able to be such persons and do this job, e.g. being able to utilize their personal characteristics to the best ends for students.

These conclusions raise a number of implications for policy and practice of PE in Norwegian schools, given that the curriculum state that PE *should* influence mental health development. The measures suggested mainly focus on the *setting* and *context* of PE, of which teachers are a part, changing the ‘boundaries’ of PE which turned out to affect teachers’ opportunities and ability to shape a social climate that promote mental health development in young people.

The Ottawa Charter (WHO, 1986) statement – ‘health is created and lived by people within the settings of their everyday life; where they learn, work, play and love’ – relates to this, and to the findings of this study. The school is a setting in which young people and teachers spend most of their everyday life interacting with each other in learning, play and work, and justify why to focus on the *PE setting* would be relevant if aiming to make the PE subject more mental health-promoting. This study suggests that not only students, but also the teachers would be likely to benefit from this, considering that the teachers at times experiences their everyday work life distressing.

Teachers are part of what forms the PE context as students’ experience it, and the subject’s competence goals are more or less focused on health promotion, including building competences that influence mental health development. Since the aims of the subject, the extensive responsibilities of the PE teachers and the working conditions in general, have significance in regard to how they work with students, steps involving a review and reconsideration of these are reasonable to consider. This also relates to how teachers in this study found their responsibilities to be too comprehensive. PE teacher who currently practices may be important to involve in such a process, as they are the people who have the most relevant experiences in this regard.

Another step that could be considered is to reduce the number of students in each PE class, giving the teachers better conditions to see, get to know, and interact with all students during a lesson, which are factors likely to support a more mental health promoting social climate. Based on the findings of this study, such a step is likely to be able to better develop certain competences, aspects of mental health and a sense of satisfaction with PE in a higher percentage of students, than the proportion of students the teachers in this study felt able to have any significant influence on. Supportive of this, White Paper 34 (2012-2013) mentions reviewed curricula for teacher education as important in relation to mental health development, as it should give future teachers knowledge of identity work, and skills needed

to facilitate a learning environment that promotes health. A measure suggested here, is to give teachers multidisciplinary competence, for example providing PE teachers with preconditions and knowledge on how to identify and intervene early with vulnerable students, and how to help students to develop positive self-perceptions and satisfaction with their bodies, that might also be transferable to other arenas of life. This measure seems worthy of consideration, since this study suggests that a lack of competency on these issues is a genuine concern of PE teachers, and that their competence is experienced as a mismatch with the present aims of the subject.

Some of the suggested steps, or quite similar ones, are on the basis of different deliberations and reviews of the PE subject, earlier discussed in different public documents (White Paper 16, 2002-2003; White Paper 34, 2012-1013). These reviews and suggestions are put forward, for example, in relation to discussion around how, and if, the assessment and content of the PE subject in general have positive implications for students' health (Lyngstad, Flagestad, Leirhaug & Nelvik, 2011). This study can contribute to supporting and strengthening the reasons why such measures should be considered, from a perspective concerning mental health development.

Further discussion of a change in formal aims and competence goals, *or* a better way to organize the subject so that today's aims becomes more realistic to achieve (for example through increased teacher density), may be one way to approach this issue. This issue needs further discussion, when the aims of the subject, as it is today, are principally good, and involves components that are likely to relate to mental health development in young people, but nevertheless hard to live up to. Furthermore, it would not be certain if any such measures would have significant implications for mental health development at all.

Overall, the study has achieved what it set out to, and has also uncovered other underlying mechanisms about this phenomenon, related to the mental health of teachers, and not only how they work, but *why* they work the way they do. The study also, related to this, suggests areas on which further investigation is worthy to do, and steps that might be relevant. Even though this study has identified both supportive and undermining factors about the ways which PE teachers work, the study cannot draw unambiguous conclusions about the teachers' role in relation to mental health development in young people, the PE arena being just one of many domains in which mental health are developed, as also highlighted in this study. The home domain and the parents obviously play a significant role in this regard; still,

teachers might be particularly important for those young people who do not have a supportive home background, as they could provide some coping skills and sense of stability in an otherwise unstable life situation. Also, these things might also be said for teachers in general, not only the PE teachers. This field overall, both from the students' and the PE teachers' perspectives, first needs to be further addressed.

However, the teachers in this study were eager to strengthen their competence in relation to mental health development to support their students, and cared for their mental well-being. This is likely to be a good base from which PE could develop further in terms of becoming even *more* of an arena with positive implications regarding mental health development than it seems to be today, and *less* of an arena of student favoritism, exclusion and failure, for a higher proportion of the adolescents participating in the subject.

Reference list

- Bailey, R. (2005). Evaluating the relationship between physical education, sport and social inclusion. *Educational Review*, 57(1). Doi: 10.1080/0013191042000274196
- Bakirtzoglou, P., & Ioannou, P. (2012). The relationship between play and physical education lesson. *Sport Science*, 5, 36-42.
- Baumert, P., Henderson, J., & Thompson, N. (1998). Health risk behaviours of adolescent participants in organized sports. *Journal of Adolescent Health*, 22, 460-465.
- Berg, N. B. J. (2007). *Elev og menneske. Psykisk helse i skolen*. Oslo: Gyldendal akademisk.
- Biddle, S. J. H. & Asare, M. (2011). Physical activity and mental health in children and adolescents: a review of reviews. *Br J Sports Med*, 45, 886-895. Doi: 10.1136/bjsports-2011-090185
- Birkeland, M. S., Torsheim, T., & Wold, B. (2009). A longitudinal study of the relationship between leisure-time physical activity and depression mood among adolescents. *Psychology of Sport and Exercise*, 10, 25-34.
- Bourdieu, P. (1984). *Distinction: a Social Critique of the Judgement of Taste*. Cambridge: Harvard University Press.
- Bremnes, A-M. J., Martinussen, M., Laholt, H. Bania, E.V., & Kvernmo, S. (2011). Positiv sammenheng mellom psykisk helse og fysisk aktivitet blant ungdom i videregående skole. *Tidsskrift for norsk psykologforening*, 48, 332-338. Retrieved from http://www.psykologtidsskriftet.no/index.php?seks_id=137599&a=2
- Bryman, A. (2012). *Social Research Methods*. Oxford: Oxford University Press.
- Bynner, J. (2001). Childhood Risks and Protective Factors in Social Exclusion. *Children & Society*, 15, 285-301. Doi: 10.1002/CHI.681
- Bø, I. & Sciefloe, P. M. (2007). *Sosiale landskap og sosial kapital. Innføring i nettverkstenkning*. Oslo: Universitetsforlaget AS.

Carter, M., McGee, R., Taylor, B., & Williams, S. (2007). Health outcomes in adolescence: Associations with family, friends and school engagement. *Journal of Adolescence*, 30, 51-62. Doi: 10.1016/j.adolescence.2005.04.002

Charmaz, K. (2006). *Constructing Grounded Theory. A Practical Guide through Qualitative Analysis*. London: Sage Publications.

Coalter, F. (2011). Sport, conflict and youth development. University of Sterling.

Coalter, F. (2012). There is loads of relationships here: Developing a programme theory for sport-for-change programmes. *International Review for the Sociology of Sport*. Retrieved from

<http://irs.sagepub.com/content/early/2012/06/03/1012690212446143.abstract?patientinform-links=yes&legid=spirs;1012690212446143v1>

Dalland, O. (2012). *Metode og oppgaveskriving for studenter*. Oslo: Gyldendal Akademisk.

De Goede, M., Spruijt, E., Iedema, J., & Meeus, W. (1999). How Do Vocational and Relationship Stressors and Identity Formation Affect Adolescent Mental Health? *Journal of Adolescent health*, 25, 14-20.

Dunne, C. (2011). The place of the literature review in grounded theory research. *International Journal of Social research Methodology*, 14(2), 111-124. Retrieved from <http://dx.doi.org/10.1080/13645579.2010.494930>

Earle, S., Lloyd, C. E., Sidell, M., & Spurr, S. (2007). *Theory and research in promoting public health*. London: Sage Publications.

Ekeland, E., Heian, F., Hagen, K. B., Abbott, J. M., & Nordheim, L. (2009). Exercise to improve self-esteem in children and young people. *The Cochrane Collaboration*. Doi: 10.1002/14651858.CD003683.pub2

Elias, N. (1956). Problems of involvement and detachment. *The British Journal of Sociology*, 7(3), 226-252.

Espenes, G. A. & Smedslund, G. (2005). *Helsepsykologi*. Oslo: Gyldendal akademisk.

Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition*, 2(3a), 411-418.

Green, J. (1999). Commentary: Generalisability and validity in qualitative research. *BMJ*, 319, 421-422.

Green, J. & Thorogood, N. (2004). *Qualitative Methods for Health Research*. London: SagePublications.

Green, K. (2010). *Key Theme in Youth Sport*. New York: Routledge.

Grills-Tauchel, A. E., Norton, P., & Ollendick, T. H. (2010). A longitudinal examination of factors predicting anxiety during the transition to middle school. *Anxiety, Stress & Coping*, 23(5), 493-513. Doi: 10.1080/10615800903494127

Hallal, PC., Victora, CS., Azevedo, MR., Wells, CK. (2006). Adolescent Physical Activity and Health: A systematic Review. *Sports Med* 2006, 36 (12) 1019-1030.

Hansen, D. M., Larson, R. W., & Dworkin, J. B. (2003). What adolescents Learn in Organized Youth Activities: A Survey of Self-Reported Developmental Experiences. *Journal of Research on Adolescence*, 13(1), 25-55. Retrieved from <http://www.most.ie/webreports/Fatima%20reports/Youth%20Services/what%20adolescents%20learn%20in%20organised%20youth%20activities.pdf>

Haudenhuyse, R. P., Theeboom, M., & Coalter, F. (2012). The potential of sports-based interventions for vulnerable youth: implications for sport coaches and youth workers. *Journal of Youth Studies*, 15(4), 437-454.

Helland, M. J., & Mathiesen, K. S. (2009). *13-15-åringer fra vanlige familier i Norge – hverdagsliv og psykisk helse*. Folkehelseinstituttet, Rapport 2009:1.

Hjemdal, O., Friborg, O., Stiles, T. C., Martinussen, M., & Rosenvinge, J. H. (2006). A New Scale for Adolescent Resilience: Grasping the Central Protective Resources Behind Healthy Development. *Measurement and Evaluation in Counseling and Development*.

Huang, C. (2010). Mean-level change in self-esteem from childhood through adulthood: Meta-analysis of longitudinal studies. *Review of General Psychology*. 54(4), 517-528.

-
- Johnson, C., Eva, A. L., Johnson, L., & Walker, B. (2011). Don't turn away: Empowering Teachers to Support Students' Mental Health. *The Clearing House*, 84, 9-14. Doi: 10.1080/00098655.2010.484441
- Johnson, K. E., & Taliaferro, L.A. (2011). Relationships between physical activity and depressive symptoms among middle and older adolescents: A review of the research literature. *Journal for Specialists in Pediatric Nursing*, 16, 235-151. Doi: 10.1111/j.1744-6155.2011.00301.x
- Jowett, S. & Cramer, D. (2010). The prediction of young athletes' physical self from perceptions of relationships with parents and coaches. *Psychology of Sport and Exercise*, 10, 361-372. Doi: 10.1016/j.psychosport.2008.12.003
- Kay, T. (2009). Developing through sport: evidencing sport impacts on young people. *Sport in Society: Cultures, Commerce, Media, Politics*, 12/19, 1177-1191. Doi: 10.1080/1743043093137837
- Kendal, S., Keeley, P., & Callery, P. (2011). Young People's Preferences for Emotional Well-Being Support in High School – A Focus Group Study. *Journal of Child and Adolescent Psychiatric Nursing*. Doi: 10.1111/j.1744-6171.2011.00303.x
- Kirkcaldy, B. D., Shepard, R. J., & Siefen, R. G. (2002). The relationship between physical activity and self-image and problem behavior among adolescents. *Soc Psychiatry Epidemiology*, 37, 544-550. Doi: 10.1007/s00127-002-0554-7
- Knight, C. (2007). A resilience framework: perspectives for educators. *Health Education*, 107(6), 543-555. Doi: 10.1180/09654280710827939
- Kvale, S. & Brinkmann, S. (2010). *Det kvalitative forskningsintervju*. Oslo: Gyldendal akademisk.
- Ledochowski, L., Unterrainer, C., Ruedl, G., Schnitzer, M., & Kopp, M. (2012). Quality of life, coach behaviour and competitive anxiety in Winter Youth Olympic Games participants. *Br J Sports Med*, 46, 1044-1047. Doi: 10.1136/bjsports-2012-091539

- Lipschitz-Elhawi, R., & Itzhaky, H. (2005). Social Support, Mastery, Self-Esteem and Individual Adjustment Among At-Risk Youth. *Child & Youth Care Forum*. Retrieved from <http://web.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=5&sid=a495f648-2867-4367-9590-bd1d47ea5a09%40sessionmgr14&hid=19>
- Lubans, D. R., Plotnikoff, R. C., & Lubans, N. J. (2011). Review: A systematic review of the impact of physical activity programmes on social and emotional well-being in at-risk youth. *Child and Adolescent Mental Health*, 17(1), 2-13. Doi: 11.1111/j.1475-3588.2011.00623.x
- Lyngstad, I., Flagestad, L., Leirhaug, P. E., & Nelvik, I. (2011). *Kroppsøving i skolen. Rapport fra arbeidsgruppe i kroppsøving*. Utdanningsdirektoratet. Retrieved from http://www.udir.no/Upload/larerplaner/forsok/Kroppsoving_i_skolen_rapport_060611.pdf
- MacCallum, J. & Beltman, S. (2002). Role models for young people. What makes an effective role model program? *National Youth Affairs Research Scheme*. Retrieved from http://www.academia.edu/604330/Role_Models_for_Young_People_What_makes_an_effective_role_model_program_A_report_to_the_National_Youth_Affairs_Research_Scheme
- Martinsen, E. W. (2004). *Kropp og sinn*. Fysisk aktivitet og psykisk helse. Bergen: Fagbokforlaget.
- Meltzer, H., Gatward, R., Goodman, R., & Ford, T. (2003). Mental health of children and adolescents in Great Britain. *International Review of Psychiatry*, 15, 185-187. Doi: 10.1080/0954026021000046155
- Miles, L. (2007). Physical activity and health. *British Nutrition Foundation Bulletin*, 32, 314-363.
- Millings, A., Buck, R., Montgomery, A., Spears, M., & Stallard, P. (2012). School connectedness, peer attachment, and self-esteem as predictors of adolescent depression. *Journal of Adolescent*, 35, 1061-1067. Doi: 10.1016/j.adolescence.2012.02.015
- Motl, R. W., Birnbaum, A. S., Kubik, M.Y., & Dishman, R. K. (2004). Naturally occurring change in physical activity are inversely related to depressive symptoms during early adolescence. *Psychosom Med*, 66, 336-342. Retrieved from <http://www.psychosomaticmedicine.org/content/66/3/336.short>

Mæland, J. G. (2010). *Forebyggende helsearbeid. Folkehelsearbeid i teori og praksis*. Oslo: Universitetsforlaget.

Norsk samfunnsvitenskapelig datatjeneste AS. (2012). *Må prosjektet meldes?* Retrieved from <http://www.nsd.uib.no/personvern/meldeplikt/>

Ogden, T. (2010). *Sosial kompetanse og problematferd i skolen*. Oslo: Gyldendal akademisk.

Olsen, M. I., & Traavik, K. M. (2010). *Resiliens i skolen*. Bergen: Fagbokforlaget.

Ommundsen, Y. (2000). Kan idrett og fysisk aktivitet fremme psykososial helse blant barn og ungdom? *Tidsskrift for Den norske legeforening*, 29, 3573-7. Retrieved from <http://tidsskriftet.no/article/226922>

Opplæringslova. (1999-2000). *LOV 1998-07-17 nr 61: Lov om grunnskolen og den videregående opplæringa*. Retrieved from <http://www.lovdata.no/all/hl-19980717-061.html>

Patel, V., Flisher, A. J., Hetrick, S., & McGorry, P. (2007). Mental health of young people: a global public-health challenge. *Adolescent Health*, 369, 1302-13. Doi: 10.1016/S0140-6736(07)60368-7

Paulska, S. A. & Schwenk, T. L. (2000). Physical activity and mental health: current concepts. *Sports Medicine*, 29, 167–180.

Roberts, K. (2009). *Youth in Transition. Eastern Europe and the West*. United Kingdom: Palgrave Macmillan.

Rojek, C. (1986). Problems of Involvement and Detachment in the Writings of Norbert Elias. *The British Journal of Sociology*, 37(4), 584-596.

Sagatun, A., Sjøgaard, A. J., Bjertness, E., Selmer, R., & Heyerdahl, S. (2007). The association between weekly hours of physical activity and mental health: A three-year follow-up study of 15-16-year-old students in the city of Oslo, Norway. *BMC Public Health*, 7(155). Doi: 10.1186/1471-2458/7/155

Sandford, R. A., Armour, K. M., & Warmington, P. C. (2007). Re-engaging disaffected youth through physical activity programmes. *British Educational Research Journal*, 32(2), 251-271. Retrieved from <http://dx.doi.org/10.1080/01411920600569164>

-
- Schoon, I., & Bynner, J. (2010). Risk and Resilience in the Life Course: Implications for Interventions and Social Policies. *Journal of Youth Studies*, 6(1), 21-31. Retrieved from <http://dx.doi.org/10.1080/1367626032000068145>
- Shepard, J., Salina, C., Girtz, S., Cox, J., Davenport, N., & Hillard, T. L. (2012). Students Success. Stories that Inform High School Change. *Reclaiming Children and Youth*, 21(2), 48-54.
- Smith, A., Green, K., & Thurston, M. (2009). Activity Choice and Physical Education in England and Wales. *Sport, Education and Society*, 14(2), 203-222.
- Steffenak, A.K.M., Nordstrøm, G., Wilde-Larsson, B. et al. (2012) Mental Distress and Subsequent Use of Psychotropic Drugs Among Adolescents—A Prospective Register Linkage Study. *Journal of Adolescent Health*, 50, (2012) 578–587.
- Strong, W. B. et al. (2005). Evidence based Physical Activity for School-age Youth. *The Journal of Pediatrics*. Doi: 10.1016/j.jpeds.2005.01.055
- Ströhle, A. (2008). Physical activity, exercise, depression and anxiety disorders. *Journal of Neural Transmission*, 116(6), 777-784. Doi: 10.1007/s00702-008-0092-x
- Thagaard, T. (2009). *Systematikk og innlevelse. En innføring i kvalitativ metode*. Bergen: Fagbokforlaget.
- Utdanningsdirektoratet, 2012. *Læreplan i kroppsøving*. Retrieved from http://www.udir.no/kl06/KRO1-03/Hele/Komplett_visning/
- Walters, S. R., Payne, D., Schluter, P. J., & Thomson, R. W. (2012). It just makes you feel invincible: a Foucauldian analysis of children's experiences of organised team sports. *Sport, Education and Society*, 1/17. Doi: 10.1080/13573322.2012.745844
- Weber, S., Puskar, K. R., & Ren, D. (2010). Relationships Between Depressive Symptoms and Percieved Social Support, Self-Esteem, & Optimism in a Sample of Rural Adolescents. *Issues in Mental Health Nursing*, 31, 584-588. Doi: 10.3109/01612841003775061
- White Paper 16. (2002-2003). *Resept for et sunnere Norge. Folkehelsepolitikken*. Det kongelige helsedepartement.

White Paper 30. (2003-2004). *Kultur for læring*. Det kongelige utdannings- og forskningsdepartement.

White Paper 34. (2012-2013). *Folkehelsemeldingen God helse – felles ansvar*. Det kongelige helse- og omsorgsdepartement.

WHO. (1986). *The Ottawa Charter for Health Promotion*. Retrieved from <http://www.who.int/healthpromotion/conferences/previous/ottawa/en/>

Wiles, N. J., Jones, G. T., Haase, A. M., Lawlor, D. A., Macfarlane, G. J. & Lewis, G. (2008). Physical activity and emotional problems amongst adolescents: A longitudinal study. *Social Psychiatry and Psychiatric Epidemiology*, 43, 765–772.

Wilken, L. (2008). *Pierre Bourdieu*. Oslo: Tapir akademisk forlag.

Witt, P. A. & Crompton, J. L. (1997). The Protective Factors Framework: A Key to Programming for Benefits and Evaluating Results. *Journal of Parks and Recreation Administration*, 15(3), 1-18.

Woolfolk, A. (2007). *Pedagogisk psykologi*. Trondheim: Tapir akademisk forlag.

Zolkoski, S. M. & Bullock, L. M. (2012). Resilience in children and youth: A review. *Children and Youth Services review*, 34, 2295-2303. Retrieved from <http://dx.doi.org/10.1016/j.childyouth.2012.08.009>

Appendices

Appendix 1: Interview guides

Interview guide – P.E. teachers, individual in-depth interviews

Theme and main questions	Further Questions
Physical education <ul style="list-style-type: none"> Can you tell me about your job as a P.E. teacher? 	<ul style="list-style-type: none"> ..how do you think this makes the students feel about themselves? ...about their identity? ...why do you think that?
The P.E. teacher's role <ul style="list-style-type: none"> Can you say something about your role as a P.E. teacher? How do you define your role as a P.E. teacher? 	<ul style="list-style-type: none"> For you, what is the most important part of this role? Why is that so? How do you plan your sessions? What kind of activities do you use? Why do you emphasis this? How do you work with your students during your lessons? ..and what do you think the role of P.E. is? Why?
The development of young people's mental health <ul style="list-style-type: none"> What do you think when I say young people and mental health? 	<ul style="list-style-type: none"> Do you think you can, in your work as a P.E. teacher, contribute to a positive development of mental health in your students? If so, in what ways? / Why not?
Social climate <ul style="list-style-type: none"> What kind of social relationships do 	<ul style="list-style-type: none"> Why do you think that is so?

<p>you develop with your students?</p> <ul style="list-style-type: none"> • What kind of social climate develops in your groups? 	<ul style="list-style-type: none"> • What factors do you value the most in these relationships? • Why? • What is your role as a part of the group? • For you, what is the most important values building the relationships on? • Why?
<p>Feedback</p> <ul style="list-style-type: none"> • Have you experienced students who seem unhappy or stressed during P.E.? • What kind of feedback do you give your students during P.E.? 	<ul style="list-style-type: none"> • If so, can you describe such a situation? • How do you deal with such situations? • In what kind of situations? • Why? • What do you want to achieve through this kind of feedback?
<p>Further comments</p> <p>.....</p>	

Interview guide – young people in focus groups

Theme and main questions	Further questions
<p>Introduction</p> <ul style="list-style-type: none"> • Can you tell me how you feel about P.E.? 	<ul style="list-style-type: none"> • Why is that? • What in particular makes you feel like that? • Have you always felt like this? • Why? / Why not? • Has it changed as you changed school, got older, changed teacher...?

	<ul style="list-style-type: none"> • If so, why? • Can you tell anything more about this?
P.E. and indicators of mental health <ul style="list-style-type: none"> • How does doing P.E. make you feel? 	<ul style="list-style-type: none"> • What particularly is making you feel like that? • Why do you think that is so?
P. E. and sports <ul style="list-style-type: none"> • Do you think that doing P.E. or sports has any consequences for how you feel about yourself and how you cope with life? 	<ul style="list-style-type: none"> • If so, what kind of consequences? • ..and how can it help cope with thing in your life? • Why do you think that is so?
The role of the P.E. teachers <ul style="list-style-type: none"> • What kind of role do the P.E. teachers have connected to what we have talked about? 	<ul style="list-style-type: none"> • Is this different from teacher to teacher? • If so, why? • What do they do that makes a difference?
Interaction with the teachers <ul style="list-style-type: none"> • What kinds of relationships occur between you and the teachers? • How do you interact with the teachers? 	<ul style="list-style-type: none"> • What do these relationships mean for you? • How do this make you feel? • What do this interaction mean for you? • How does it make you feel?
Feedback <ul style="list-style-type: none"> • Are you getting feedback from the teachers? 	<ul style="list-style-type: none"> • What kind of feedback, and in which situations? • How does the feedback make you feel? • In which ways is this feedback influencing you?
Further comments	

Appendix 2: Written consent

Samtykkeerklæring

Jeg har fått skriftlig og muntlig informasjon om prosjektet, og hensikten med intervjuene. Jeg godtar at mine/ den mindreårige under min omsorg sine synspunkter og refleksjoner, kan brukes i Ida Storberget sin masteroppgave i folkehelsevitenskap ved Høgskolen i Hedmark. Jeg er innforstått med at deltagelsen er frivillig, og at jeg/den mindreårige i min omsorg når som helst kan trekke seg fra prosjektet uten å begrunne valget.

Sted/Dato

Underskrift

Appendix 3: Letter of information

Informasjonsbrev

Hamar, 07.01.13.

Hei!

Jeg er masterstudent i folkehelsevitenskap med vekt på endring av livsstilsvaner ved Høgskolen i Hedmark, Campus Elverum. I den forbindelse skal jeg skrive masteroppgave knyttet til temaet Fysisk aktivitet og mental helse hos barn og unge. Prosjektet er en del av et større forskningsarbeid ved høgskolen, og formålet med denne delundersøkelsen er å oppnå ny kunnskap rundt de signifikante voksne (lærere) som jobber med ungdom og idrett/fysisk aktivitet sin rolle i utviklingen av mental helse hos de unge.

Dataene vil innhentes gjennom individuelle dybdeintervjuer av lærere ved skolen, fokusgruppeintervjuer av elever, og observasjon. Dataene vil analyseres og oppsummeres i en masteroppgave, som vil kunne gi deltakere og andre innsyn i dette temaet.

Oppgaven vil gjøres tilgjengelig for alle involverte parter. I oppgaven vil ingen navn nevnes, og deltakere vil anonymiseres slik at ingen opplysninger vil kunne spores tilbake til enkeltpersoner.

Å la seg intervjuer er frivillig, og man kan når som helst i prosessen velge å trekke seg uten å begrunne sin avgjørelse.

Tiden for et intervju anslås til ca en time, og intervjuene vil tas opp på bånd for å lette og kvalitetssikre arbeidet med analyse av dataene i etterkant. Opptak vil slettes så fort arbeidet er ferdigstilt.

Med vennlig hilsen

Ida Storberget

Masterstudent i folkehelse ved Høgskolen i Hedmark

Appendix 4: NSD document

Norsk samfunnsvitenskapelig datatjeneste AS
NORWEGIAN SOCIAL SCIENCE DATA SERVICES



Harald Hårfagres gate 29
N-5007 Bergen
Norway
Tel: +47-55 58 21 17
Fax: +47-55 58 96 50
nsd@nsd.uib.no
www.nsd.uib.no
Org.nr. 985 321 884

Miranda Thurston
Institutt for idrett og aktiv livsstil
Høgskolen i Hedmark, campus Elverum
Postboks 400
2418 ELVERUM

Vår dato: 11.10.2012

Vår ref:31675 / 3 / SSA

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 01.10.2012. Meldingen gjelder prosjektet:

31675

Idrett, fysisk aktivitet og mental helse hos ungdom - hvordan bidrar signifikante voksne til utviklingen av denne

Behandlingsansvarlig
Daglig ansvarlig
Student

*Høgskolen i Hedmark, ved institusjonens øverste leder
Miranda Thurston
Ida Storberget*

Etter gjennomgang av opplysninger gitt i meldeskjemaet og øvrig dokumentasjon, finner vi at prosjektet ikke medfører meldeplikt eller konsesjonsplikt etter personopplysningslovens §§ 31 og 33.

Dersom prosjektopplegget endres i forhold til de opplysninger som ligger til grunn for vår vurdering, skal prosjektet meldes på nytt. Endringsmeldinger gis via et eget skjema, http://www.nsd.uib.no/personvern/forsk_stud/skjema.html.

Vedlagt følger vår begrunnelse for hvorfor prosjektet ikke er meldepliktig.

Vennlig hilsen


Vigdis Namtvedt Kvalheim


Sondre S. Arnesen

Kontaktperson: Sondre S. Arnesen tlf: 55 58 25 83

Vedlegg: Prosjektvurdering

Kopi: Ida Storberget, Østregate 51, 2316 HAMAR

Avdelingskontorer / District Offices

OSLO NSD, Universitetet i Oslo, Postboks 1055 Blindern, 0316 Oslo. Tel: +47-22 85 52 11. nsd@uia.no

TRONDHEIM NSD, Norges teknisk-naturvitenskapelige universitet, 7491 Trondheim. Tel: +47-73 59 19 07. kyrr.svarva@svt.ntnu.no

TROMSØ NSD, SVF, Universitetet i Tromsø, 9037 Tromsø. Tel: +47-77 64 43 36. nsdmaa@svt.uit.no

Personvernombudet for forskning



Prosjektvurdering - Kommentar

Prosjektnr: 31675

Personvernombudet kan ikke se at det i prosjektet behandles personopplysninger med elektroniske hjelpemidler, eller at det opprettes manuelt personregister som inneholder sensitive personopplysninger. Prosjektet vil dermed ikke omfattes av meldeplikten etter personopplysningsloven.

Personvernombudet legger til grunn at man ved transkripsjon av intervjuer eller annen overføring av data til en datamaskin, ikke registrerer opplysninger som gjør det mulig å identifisere enkeltpersoner, verken direkte eller indirekte. Alle opplysninger som behandles elektronisk i forbindelse med prosjektet må være anonyme. Med anonyme opplysninger forstås opplysninger som ikke på noe vis kan identifisere enkeltpersoner i et datamateriale, verken direkte gjennom navn eller personnummer, indirekte gjennom bakgrunnsvariabler eller gjennom navneliste/koblingsnøkkel eller krypteringsformel og kode.

Appendix 5: Observation schedule

Participants:

Class:

The teacher's role in the group?	
Form and type of activities?	
Feedback – positive/negative, how and when?	
Social interaction and climate?	

The teacher – student interactions?	
Feelings generated?	
Situations occurring – what and why?	
Additional observations	